

## The Effect of Reduced Loan Periods on High Use Items

*A study was conducted in a university departmental library to determine the effectiveness of satisfying user demand for high use items by reducing the loan period. It was assumed that assigning a one-week loan period to such items would increase their availability to users, thereby increasing circulation. A 20 percent increase in student charges supports the validity of this technique.*

**I**NFLATION, COUPLED WITH LIMITED FUNDS for the purchase of library materials, has necessitated limiting acquisitions in the Physics Library of The Ohio State University. Under these circumstances sporadic complaints from both students and faculty concerning immediate unavailability of titles in the collection has served to point up the need for a review of the effectiveness of library circulation policies.

The Physics Library is one of twenty-one department libraries of The Ohio State University Libraries. The collection contains approximately 36,500 cataloged volumes with an annual circulation of approximately 30,000. However, in the past two years, its circulation has dropped 6 percent and 7 percent respectively. The Ohio State University Libraries has an on-line automated circulation system.<sup>1</sup> Statistics from this system were used to analyze the Physics

Library's circulation record and to compare it to that of the overall library system.

Previous research by one of the authors indicates that circulation in The Ohio State University Libraries follows a standard Bradford distribution.<sup>2,3</sup> A small percent of the titles (3.7 percent) accounts for a disproportionately high percentage of the circulation activity (56.1 percent). It is the basic assumption of this paper that this phenomenon represents a major limiting factor in circulation service. Circulation service, for the purposes of this study, is defined as a measurable activity represented by a patron charging out a book from the library. Any increase or decrease in circulation service is reflected in the number of charges recorded at the circulation desk. This definition of circulation ignores for practical purposes the question of convenience of service for a single patron. We propose that minimizing frustration of many readers for items at their peak of usefulness is preferable to convenience for the single patron for those same items. For example, all other things being equal, it is preferable to have ten patrons charge a high-use vol-

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*Virginia E. Yagello is associate professor of library administration and head of the Physics and Chemistry libraries; and Gerry Guthrie is head, research and administration, The Ohio State University Libraries, Columbus.*

ume for one week than to have one patron charge the same book for ten weeks. Therefore, any increase in the number of recorded charges (i.e., an increase in the number of patrons served) represents an improvement in circulation service.

Two possible ways to improve access to items in heavy demand are to (1) increase the number of copies available or (2) shorten the loan period. Duplication is not a practical solution in times of severe budgetary restraints and is not considered in this study.

In this paper we report on a method to improve library circulation service by identifying high demand items and then reducing the loan period on such items to one week with unlimited renewal privileges for all users. The normal loan period is three weeks for students and thirteen weeks for faculty. Circulation studies conducted in other university libraries show that there is a marked tendency for books to be kept out until they are due back, regardless of the status of the borrower or the subject matter of the book.<sup>4, 5</sup>

The advantage of an on-line automated circulation system is that user-demand for titles can be readily translated into "saves" or "holds" which generate recall notices. Such notices serve either to prevent user-retention of books in high demand or to alert the library as to which particular titles users are finding currently unavailable to them. In practice, users have shown a reluctance to place "saves," not realizing the potential of the service at their disposal. The purpose of this study, therefore, is to determine if circulation service would be improved by systematic reduction of loan periods for all high-use titles.

#### METHOD

The study was conducted at the Physics Library from April 1, 1974, to June

30, 1974. The Physics Department Library Committee approved the test February 5, 1974.<sup>6</sup>

High demand items were defined as (1) all books charged at least once since June 1, 1973, or (2) those acquired by the library since that date. The validity of this definition is supported by a study of R. W. Trueswell. Trueswell found that 75 percent of the current circulation in the Air Force Cambridge Research Library circulated at least once in the previous year.<sup>7</sup> Trueswell's study corresponds to the finding of Fussler and Simon, who in their 1961 study concluded that the best predictor of future use of a book is past use.<sup>8</sup>

Prior to the test date, the loan period of all physics monographs was reduced to one week on the computer. At the time of charging, low demand items were given the normal loan period. Clerical procedures are explained in a Physics Library internal report.<sup>9</sup> Serial volumes have a regular one-week charge and were not included in the study. Reserve circulation was not included in any statistical data recorded. Students are fined for overdue books while faculty are not. Renewals are unlimited if no "saves" are present. During the three months of the test, only one complaint was received from the faculty concerning the shortened loan period.

No special monitoring was necessary as the statistical reports routinely generated by the circulation system are adequate to record circulation activity. Copies of approximately 60 percent of the charges were retained for further analysis. Circulation statistics as recorded by the computer system for spring 1974 are compared to the same figures for 1973 in Table 1.

#### ANALYSIS AND CONCLUSIONS

The lack of any significant change in

faculty charges suggests a number of possible explanations. Faculty usage patterns are more consistent and less subject to influence by this technique. The lack of an overdue fine policy for faculty removes the motive for returning books more promptly than normally. Faculty loans are not directly comparable to student circulation.

The 20.9 percent increase in student usage is considered significant in view of the decline in library circulation over the previous two years. Student enrollment and faculty have remained fairly stable during this same period. (It is assumed that any possible increases due to increased reading assignments by faculty would be reflected in reserve loans which are not included in this study.) Since readers had unlimited renewal privileges, it would appear that the increase of 231 charges over the same period in 1973 could be considered as

charges to readers whose need would not have been satisfied if the study had not been conducted.

Renewal and "save" activity increased markedly during the period of the study. This is to be expected when loan periods are reduced.

This study has indicated the advisability of considering this technique for incorporation by the entire library system. Variations of the technique, e.g., its modification through the use of the mechanisms of "saves," can be applied to any library where circulation is limited by the lack of availability of high demand items. Whereas in the past it would have been prohibitively expensive to gather statistics on the use of particular titles, now the computer, by this technique, can serve to alert the library to the need for restricted loans on only those titles requiring such qualifications.

TABLE 1  
CIRCULATION STATISTICS, PHYSICS LIBRARY, THE OHIO STATE UNIVERSITY,  
SPRING 1973 AND SPRING 1974

Borrower	Charges		Transaction Change	Renewals		Saves	
	1973	1974		1973	1974	1973	1974
Faculty	1,062	1,053	- 0.8%	444	876	75	82
Students	1,106	1,337	+20.9%	367	1,270	55	85
TOTAL	2,168	2,390	+10.2%	811	2,146	130	167

#### REFERENCES

- Irene B. Hoadley and A. Robert Thorson, eds., *An Automated On-Line Circulation System: Evaluation, Development, Use* (Columbus: The Ohio State University, Office of Educational Services, 1973).
- Gerry D. Guthrie, *A Selective Statistical Study of Transaction Activity in a Large On-Line Automated Circulation System* (Columbus: The Ohio State University Research Foundation, 1973).
- Ferdinand F. Leimkuhler, "The Bradford Distribution," *Journal of Documentation* 23:197-207 (Sept. 1967).
- Michael K. Buckland, "An Operational Research Study of a Variable Loan and Duplication Policy at the University of Lancaster," *Library Quarterly* 42:97-106 (Jan. 1972). Reprinted in *Operations Research: Implication for Libraries, the Thirty-Fifth Annual Conference of the Graduate Library School* (Chicago: University of Chicago Pr., 1972), p.97-106.
- Barton R. Burkhalter and P. A. Race, "Analysis of Renewals and Overdues and Other Factors Influencing the Optimal Charge-Out Period," in Barton R. Burk-

- halter, ed., *Case Studies in Systems Analysis in a University Library* (Metuchen, N.J.: Scarecrow, 1968), p.11-33.
6. Virginia E. Yagello, "One Week Loan: New or High Volume Book" (Internal Report, Physics Library, The Ohio State University, 1974), p.1.
  7. Richard W. Trueswell, "Some Behavioral Patterns of Library Users: The 80/20 Rule," *Wilson Library Bulletin* 43:458-61 (Jan. 1969).
  8. Herman H. Fussler and Julian L. Simon, *Patterns in the Use of Books in Large Research Libraries* (Chicago: University of Chicago Pr., 1969), p.15, 143.
  9. Yagello, "One Week Loan," p.3-4.