SERIALS USE IN A COLLEGE OF AGRICULTURE EDUCATION LIBRARY

Joseph Adzobu
Assistant Librarian, UEW Library,
College of Agriculture Education, Mampong-Ashanti
and
Juliana A. Opare
Senior Assistant Librarian,
University of Cape Coast Library, Cape Coast.

ABSTRACT

The sweep method was used to examine serials use at the Library of College of Agriculture Education, University of Education, Winneba. This involved counting in-house use by library staff during re-shelving of used serials left on study tables. Data obtained mimicked Trueswell's 80/20 rule; most of the use scores were attributable to only about 23% of serial titles studied. Serial titles available covered eight subject disciplines. Fourteen high-use serial titles out of 62 were noted; six of these were under Agriculture, the main subject of study at the College. No high-use serial title existed in the primary sciences: Mathematics, Chemistry, Physics and Biology. High-use scores were also noted among serial titles no longer received at the Library. The second semester of the academic calendar had higher use scores than the first semester and the long vacation period had the highest monthly use scores. Factors such as the subject disciplines of titles and activities of final year students influenced use levels of ceased serial titles and the periods of high use respectively. Re-subscription of high-use titles no longer received, collection of new serial titles for the primary sciences and use of e-resources through CARLIGH (if print serials could not be procured) were recommended. Also recommended was a continued monitoring of serials use at the library so as to have a high-use serials stock.

KEYWORDS: PERIODICALS, AGRICULTURAL SCIENCE,
ACADEMIC LIBRARIES, USER STATISTICS

Introduction

This study is about the Library of College of Agriculture Education, University of Education, Winneba (UEW). It is also known as the Nana Afua Serwaah Kobi Ampem II (NASKA II) Library at Mampong-Ashanti.

UEW has campuses at three locations in Ghana; Winneba, Kumasi, and Mampong-Ashanti. The latter hosts the College of Agriculture Education. The College currently runs a four-year undergraduate programme leading to a Bachelor of Education (B.Ed.) degree in Agriculture Education. Its mission is to produce graduates "with the requisite academic proficiency and professional competencies for teaching Agricultural Sciences and Agroforestry at the pre-tertiary level, conduct research, disseminate relevant knowledge and skills and influence national policy" (UEW, 2003). To achieve these ends, the University Library's mission is to "facilitate access to all forms of information, provide information literacy skills within the University and support teaching, learning, research, administration and other university activities" (UEW, 2003).

In order to satisfy the above mission statements, it behoves the Librarians of the University to constantly research into library material use and user needs of its constituents so as to meet their information needs through appropriate collection building and administration. This study is an inquiry into the use of print serials at the College's Library.

In August-September 2003, a reorganization of the serials collection and other ephemeral publications in the library was made. This was done to optimize the use of library space, better display the serials collection and start processing and storing relevant ephemeral publications in pamphlet boxes. As part of the reorganization, the serials were shelved under Library of Congress subject classes.

Sixty-two serials titles were available and were in eight Library of Congress subject categories. There were short-run (few issues) and long-run (many issues) serials. Most of these were being received gratis and therefore were not regular resulting in gaps in issues available under each title. Unlike monographs, no circulation statistics existed on serials use. One could not therefore tell how useful the collection was to patrons. Also, information about use levels of long-run serial titles could be of use in managing their early back issues. These realizations prompted the start of this use study in October 2003.

Other sources of primary literature were available to students and faculty during the study period. These were:
1. The Essential Electronic Agriculture Library (TEEAL) index, a bibliographic database which helped patrons order full text articles from the Institute for Scientific and Technological Information (INSTI) of Council for Scientific and Industrial Research, Accra through document delivery.
2. EBSCO CD-ROMs at the Library; these provided full text articles.
3. The Programme for the Enhancement of Research Information (PERI). This programme provided full text articles through internet resources; it ended in 2004.
4. Internet subscribed resources purchased by the Consortium of Academic and Research Libraries in Ghana (CARLIGH). This started in 2005.
5. Global Online Research in Agriculture (AGORA). This is a Food and Agriculture Organization (FAO) sponsored Internet facility which became available to the College in 2005.

How these e-resources impacted the use of print serials is yet to be explored.

Literature Review

Results from in-house serials use studies inform decision-making of Librarians on several aspects of library serials stock management. Use studies help Librarians in serial cancellation decisions (Naylor, 1993), cooperative acquisition, planning of interlibrary and document delivery projects (Price & Carey,1993) and developing policy on withdrawal of little used back runs to remote storage (Gammon & O'Connor, 1996; Naylor, 1993). In all these, the object is to identify low-use and high-use serials. Decisions from the use study to cancel, retain or acquire a particular serial (especially for subject areas noted to lack serials) affect library fund management, use of scarce library space and library client satisfaction levels.

Several methods have been devised to study in-house use of serials. Some of these are:

1.   The 'sweep' method – daily recording of used serials left on study tables.
2.   Inquiry method – counting enquiries made for serial titles deliberately removed from the open shelf sequence.
3.   User Records – requesting users to record their use of a title on forms attached to issues.
4.   User Survey – interviewing a sample of the user population to elicit what titles they use.
5.   Observation – recording use by observing clients as they consult displayed serials. (Spiller, 1980; p.149)

Spiller (1980) evaluated these methods and recommended method 5 (observation), as the most accurate if carried out over a sufficient period of time. Methods 1 to 4 he suggested, give inaccurate scores of in-house use with methods 1 to 3 recording a shortfall and method 4 registering an overestimate.

Altmann and Gorman (2000) employed, for a year, a variation of the sweep method in which self-adhesive stickers on the spines of bound serials were used to record use during re-shelving. They recommended, inter alia, repeated use studies in subsequent years to ensure that only serials used repetitively are retained in open access. Naylor (1993) also took a close look at the effectiveness of two circulation study techniques in which the sweep methodology was used. In one, patrons were relied upon to indicate use while in the other, library staff recorded use during re-shelving. He concluded that the sweep method with patron participation was less effective.

In-house use surveys of serials (no matter the methods used) have been found to be of real value as they provide evidence to lend weight to decisions Librarians make in respect of serial management issues.

The sweep method with library staff participation was used in this study.

Methodology

Periods of less than one year are frequently used to assess use of titles in a collection (Naylor, 1993). Gammon and O'Connor (1996) mentioned W.J. Shaw as advocating long-term studies as

the library and its environment were not static. This study covered a two-year period, from October 2003 to September 2005.

The sweep methodology suited this library best. Library policy prohibits the checking out of serials – only in-house use is allowed. Back issues of each title were not many therefore periodic binding did not take place during the study period. All issues were thus available for client use. Also, at NASKA II Library, patrons were advised by large posters not to re-shelve materials. Used serials were therefore left on study tables for daily counting.

A use was defined as an in-house consultation of a serial by a patron. Excluded from this study were local newspapers.

To collect data on in-library use, each serial title was assigned a specific number. The total number of issues of each title used daily was recorded against this number in a notebook at the Circulation Desk. Also counted were materials sent for photocopying.
Library staff performed all shelving and recording duties as they were accustomed to these routine duties. Data collected was entered on a spreadsheet for each serial title for the 24 month period and totalled to determine use. Possible sources of error in data collection were re-shelving by users, repeated use of used issues on study tables and unrecorded uses during re-shelving. Throughout this study, patrons were not informed that a study of this nature was being carried out.

Results

The amount of use ranged from 0 – 376, with a cumulative use score of 1622 for the 62 serial titles. Three (4.5%) of them recorded no apparent use while another seven (11.3%) had only one. Thus 16% of titles had virtually no use. Use data for the remaining 52 titles displayed a lot of scatter and ranged from 2 – 376 with major gaps between 85, 107, 183 and 376 uses. Measures of central tendency, the mean, median and mode were 26.1, 17 and 7 respectively; showing the distribution to be positively skewed. This meant a clustering of titles toward the low-use end of the data field (Dunn, 2001; p. 148). It also meant a large number of titles received little use.

The titles were separated into low-use and high-use groups. Low-use titles were those which did not average one use per month during the study. Their use scores ranged 0 – 21 (all scores below the mean). High-use titles averaged two or more uses per month during the study (all scores above the mean). Their scores ranged 31 – 376. In all, 14 high-use and 48 low-use titles with cumulative use scores 1284 (79.2%) and 338 (20.8%) respectively were identified (Table 1). These scores mirror Trueswell's 80/20 rule (also known as "the law of the vital few" or "the law of maldistribution"). According to this rule, 80% of circulation of documents involve only 20% of the holdings in a library (Hjorland, 2005). Here, 79.2% of use involved only 23% of titles.

Table 1: Usage Category, Status and Scores of Titles.

Category of Title	No. of Titles	Current Titles		Ceased/ Cancelled Titles		Grand Total Use Scores	% Grand Total Use Scores
		Number	Total Scores	Number	Total Scores		
Low-use	48	13	97	35	240	338	20.8
High-use	14	8	916	6	368	1284	79.2
Total	·62	21	1013	41	608	1622	100.0

Source: Field Study, 2003/2005

The titles were further separated into current and ceased/cancelled titles. The latter were titles which were either being received gratis and discontinued by their donors or titles which have been cancelled because of funding problems. Among the high-use titles were six which were no longer being received by the Library (Table1). This group was significant as it formed 43% of the high-use serials in the library.

Table 2: Distribution of titles and their Status under Subject Disciplines:

Category of Title	Library of Congress Disciplines								Cumulative Total
	A	H	J	L	Q	S	T	Z	
Low-use	2	7	4	6	3	24	1	1	48
High-use	3	2	1	2	Nil	6	Nil	Nil	14
Current	3	1	3	2	1	10	Nil	Nil	20
Ceased/Cancelled	2	8	2	6	2	20	1	1	42
Total No. of Titles	5	9	5	8	3	30	1	1	62

Source: Field Study, 2003/2005

When the titles were classified, Agriculture (S) had the highest number of titles – 30 (48.4%), followed by Social Sciences (H) -9 (14.5%) and Education (L) – 8 (12.9%) etc. (Table: 2). Agriculture also had the highest figures in the other categories of use and currency. It was noted that of the 14 high-use titles, six (6) were under Agriculture, three (3) under General Works (A), two (2) each under Education and Social Sciences and one (1) under Politics (J). Agriculture, Social Sciences and General Works had three, two, and one respectively of ceased/cancelled titles in the high-use category.

Use scores combined for various periods in the academic calendar during the study are shown in Table 3. Patrons use more serials in the second semester, 732 uses (45.1%), than in the first, 554 uses (34.2%). The highest monthly use was during the long vacation period, 83 uses per month.

Table 3: Composite Use of Titles in Respect of the Academic Calendar

Period	No. of Months Cumulative	(Cumulative) Scores	Approximate Use /Month	Cumulative Scores % Use
1ˢᵗ Semester	8	554	69	34.2
2ⁿᵈ Semester	10	732	73	45.1
Christmas Break	2	6	3	0.4
Long Vacation	4	330	83	20.3
Total	24	1622	68	100

Source: Field Study, 2003/2005

Discussion

At the end of the study, 42 titles of serials, (67.7%) of the 62 studied, fell into the ceased/cancelled category. This high rate of non-receipt of titles could have affected use scores. Altmann and Gorman (2000) referred to Naylor's use levels of journals in various disciplines while studying the use of density per shelf space as a criterion in the deselection and relegation of serials. They pointed out that some disciplines have "a high immediacy and low longevity" (high use of current issues followed by a rapid fall-off in use of earlier issues), while others have "a low immediacy and high longevity" (low use of current issues followed by a rise in use of earlier issues). Serial titles in the ceased/cancelled group with "high immediacy and low longevity" would experience low-use as current issues were no longer received. The opposite could be true for disciplines with "low immediacy and high longevity. It was noted that six titles in the high-use group were no longer being received by the Library. As past use can foretell future use (Gammon & O'Connor, 1996), it is predicted these titles will continue to receive repetitive use.

No high-use serial title was recorded among the primary sciences. This indicated that the available titles were not relevant to teaching and research at the College. Agriculture is a science; its study is enhanced with information from the primary sciences. Agriculture is also the core subject studied at the College; therefore journals of the primary sciences, of high-use will benefit teaching and research and positively impact the study of Agriculture Science at the College.

High uses of serial resources were noted to occur during the second semester and the long vacation period. These could be attributed to final year students making use of these resources in writing up their dissertations. The provision of uninterrupted library services to faculty and students during semester breaks is thus a sound policy.

Conclusion

The following six serial titles in the ceased/cancelled category were in the high-use group:
- African Farming;
- Agriculture and Rural Development;
- IITA Research;

- Tropical Agriculture;
- Tropical Pest Control; and
- West Africa Magazine

Subscription to the current issues of these titles will be of immense use to patrons as current high use of their back issues indicates their relevance to the programmes being run at the College and a predictor of future use. A new set of serial titles in the primary sciences is called for as currently available titles are in the low-use category indicating that they are not relevant to user needs.

Recommendations

Factors that can affect serials use are, inter alia, the student population, the ratio of undergraduates/graduate students, research interests and programmes being ran by the institution (Price & Carey, 1993). During the study, only one undergraduate programme, Bachelor of Education, Agriculture, was offered at the College. A postgraduate programme in Agriculture and an undergraduate programme in Integrated Science Education are scheduled to start in the 2006/2007 academic year. Undergraduate students are neither heavy users of libraries (De Jager, 1997) nor of primary literature (Naylor, 1993). With the beginning of a postgraduate programme and an increase in the student population, an increase in serial use is anticipated. Therefore, restoration of subscription of the ceased/cancelled, high-use serials listed above is strongly recommended. Five of them are agriculture-related serials, indicating they are relevant to courses run by the College. Also, the absence of high-use primary science serials in the Library should be remedied by subscription to new ones. The availability of primary science serials will enhance teaching, learning and research especially when the College starts the proposed Integrated Science Education programme – a course in the primary sciences.

The above two recommendations should come to fruition with the support of faculty. To build a useful, balanced collection, material selections from the Librarian, faculty and other users are important. In this regard this paper will be made available to faculty for their perusal.

Any new serial subscriptions should either be e-journals included in the Internet subscribed resources available to the College through CARLIGH or print journals.

To complete the reorganization of the serials collection started in 2003, low-use ceased/cancelled serials should be moved to storage. Also, long-run, low-use serials should have their issues partitioned; early issues will be sent to storage while maintaining current issues on shelves. This will create much needed shelf space.

Monitoring of serial use by the sweep method in the Library should continue as a routine. This will provide data for any future use study. Also, any future measure of serials use should include a user survey to ascertain user satisfaction levels and the relevance of titles to user needs. These will help collect and maintain serial titles that are of optimum benefit to our patrons.

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