

THE USERS OF BIOLOGY LIBRARIES

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The reform of the education system will not attain its objectives without well-equipped, modernized libraries.

The concept of university libraries refers to many hypotheses and forms of activity.

The scientific evaluation of library users is the main means of optimizing the university library network. This is necessary because we need a new higher education structure tailored to the requirements of society.

The use of library statistics in analyzing the process of reading in a branch library such as the Zoology branch library at the Biology-Geology-Geography section of the Central University Library, Cluj is one of these methods, a rigid but exact one. Combined with a public opinion survey based on a questionnaire about reading conditions, its characteristics, quality and value completed by 100 readers can elucidate some major problems in librarianship activity.

These statistics (see the Appendix) reveals that the Zoology branch library has a number of 48,000 volumes, divided in three main categories: 30,000 volumes of books (62.50%), 15,000 volumes of periodicals (31.25%) and 3,000 volumes of manuals (6.25%). Grouping them according to different fields shows that Animal Biology is in the first place, followed by Biology in general, Vegetal Biology, Medicine, Agronomy, Geology, Geography, Chemistry, Physics, Mathematics, Methodology, Psychology, History, Arts, Generalities and Religion and reveals the characteristics, profile and value of the library as the material basis of documentation.

40,931 volumes were read in the year 1997, including 18,800 borrowings by a number of 3850 readers.

Library statistics shows that this branch needs a part-time librarian (keeper) with high school education (we calculated this by dividing the total number of documents, 48,000 to 100,000) and another person for scientific information (we obtained this result by dividing the same total by 40,000).

The statistics of library users and their evaluation reveals the number of employees required in the reading room (we have to take into account the total number of books read in 1997 at this branch – 40,93 volumes – and divide it by 15,000. We obtain 2.7 norms. Generally speaking, we fit into these statistic norms.)

The number of publications at the Zoology branch is increasing. This is clear if we divide the total number of documents purchased during a year by the total number of beneficiaries (300:1900): we obtain 0.16 volumes for each reader which seems a bit exaggerated (not even one volume per person).

We must differentiate between **registered** library users (1900 = 1670 students and 230 teaching staff, researchers) and **frequent** library users (40,931), their number based on call cards and borrowings.

The **index of user frequency** based on the ratio of the total number of frequent users last year and the number of registered users (40,931:1900) indicates how many times a registered reader visited the library and this is 21.5 (approximately twice a month) which is not a very high number.

The **index of document circulation** shows how many times a document was read in a year. This can be calculated by dividing the total number of documents read in a year by the whole number of documents in the library (40,931:48,000) = 0.85 which is a slow circulation. This is due to the great number of unused, outdated documents (approximately 13,800 books and 6,200 periodicals) and the unfavourable reading conditions also revealed by the questionnaires answered by students.

The **speed of document circulation by borrowings** calculated in the same way (18,000:48,000) is even lower (0.39) and shows the insufficient “capitalization” of library stocks and their outdatedness. However, if we take into account the number of 4,000 coursebooks (only these can be borrowed), we obtain the

speed of 4.7 which is quite good as compared to the optimal which is 3.

The **index of the intensity of reading documents** given by the ratio of the total number of documents read in a year and the number of frequent readers $(40,931:17,925) = 2.3$ shows how much a library user reads in a year; this value is good compared with the optimal 4.

The **intensity of reading borrowings** (the total number of borrowings, 18,800 compared to the number of borrowers, 3850) is between 4.9 and 5 which is a very small number compared to the optimal 25.

The dissatisfying results have urged us to replace outdated materials by new ones (coursebooks, especially), increase the number of places in the reading room (24 places are insufficient for 1900 subscribed readers) and eliminate disturbing circumstances.

Our statistics was based on those 40,931 volumes read during the year 1997 in the reading rooms, including reference books on open shelves and borrowed books, as well as the 1900 registered readers.

The table shows the publications read by different readers of the Zoology library during the twelve months of the year.

A first glance at the table reveals a great intensity of reading in March, April, May, December, and a reduced intensity in January, February, June, July, August, September, October and November. These latter periods cover holidays in general, while the former ones are the exam sessions and the periods of writing diploma works. We can easily calculate the average reading of volumes: 22.5 per student, where there are 1670 students (562 – Biology, 272 – Geology, 836 - Geography) and approximately 130 members of the teaching staff, 100 researchers, not taking into account other categories with reduced frequency.

Regarding the number of publications in this library (approx. 48,000 volumes), the annual reading frequency is theoretically 0.85 per book per year, but practically only a reduced number of books (4000) (mainly manuals) and some 40 titles of

the 550 periodicals are read with a circulation speed of approximately 10 times per year.

The frequency of student readers (33,315) at the Zoology library is 24.5 per year for every user if we take into account all users, and 72.8 for Biology students (28,531) if we disregard other categories who have a reduced frequency: teaching staff 7.69 (3108) and other categories 11.15 (4508).

Regarding the frequency of different user categories there is a clear difference between students (33,315), teaching staff (3,108) and other categories (4,508), including researchers, PhD students, professors, librarians, pupils and other specialists, biologists, physicians, agronomists, engineers, physicists, chemists.

The group of students is quite heterogeneous, but they are predominantly students at the Faculty of Biology (28,531), Medicine (1,984), Geology (1,196), Geography (252), Pharmacy (144), Agronomy (132), Zootechnics (124), Chemistry (60), Psychology (40), Physics (36) and the College of Imagery (20).

Even if the last seven groups are poorly represented, their presence compared to the small number of reading room places (24 and 30 in exam sessions) shows the need for interdisciplinary materials, at least for diploma works and signals the importance of our publications for the specific users of other faculties, as well as the shift of weight in special libraries towards an increasingly diverse reading public and their various needs.

First we divided library materials into books and periodicals. Thus, 33,551 books and 7,880 issues of periodicals were read. Grouping them according to reader categories, students (the main category) read books, predominantly (30,687) and 2,628 periodicals; then there is a category which read a greater number of periodicals (3,172) than books (1,336) and finally, the teaching staff read more periodicals (2,080) than books (1,028).

Each group of publication was further divided into Romanian publications (29,701: 27,903 books and 1,392 periodicals) and foreign publications (11,636: 5,116 books, 5,520 periodicals).

There is a third subdivision of books: manuals (18,836) or treatises (8,552); language (in case of those 5,116 foreign pub-

lications); provenance in case of those 6,520 foreign periodicals: subscriptions (2,448), exchange (3,665), donations (416).

The preference for books is relevant but normal as compared to a total number of 33,000 publications: Romanian manuals (57.8%) and treaties (26.4%) come first, followed by books in foreign languages, mainly English (1.92%), German (1.20%), French and Russian in an equal proportion (0.86%) and Italian (0.60%).

We must mention the small number of readings in Hungarian (books and treaties, especially: 2,980 that is, 9.15%) and as a result we have decided to increase this stock.

Regarding the total number of periodicals in the library (approx. 15,000 volumes, 550 titles) we must mention the relatively small number of Romanian periodicals read (1,392) as compared to foreign ones (6,520): subscriptions (37.5%), exchange (56%) and donations (6.4%).

The speed of circulation for periodicals is 0.25 times a year per issue, but practically only 40 titles are read, which shows the existence of an unused surplus material.

The rare reading of foreign publications, both books and periodicals, can be explained by the inadequate language skills of library users and also their lack of knowledge about these publications, either because they rarely use the catalogue or because the best and up to date books cannot be found in the library; sometimes professors and researchers borrow them for a long period and students can only access them through the borrower (if someone recommends them the book).

Of course, one could say that these publications should not be lent but experience shows that professors and researchers use them day after day and they need these copies to recommend students what chapter to read, what table or illustration to use.

The library should have more copies of these basic publications.

The **statistics of reader information and bibliography** shows the extent to which library users' information needs are fulfilled by verbal / written information and bibliographic references on computer, grouped by topics. Their total indicates

the efficiency of library work. The total number of bibliographic references per year as compared to 2,500 gives the necessary number of librarians working in this field ($10,000: 2500 = 4$), although we must be aware of the fact that these people also have other tasks. Successful reader information is helped by the large collection of reference books, encyclopaedias, dictionaries, bibliographies, periodicals, catalogues and there is also the tradition of reader information at this section going back to the 1960s.

The questionnaire tried to track users' needs to see whether it confirms or contradicts library statistics. Sociological surveys are efficient methods of outlining user needs; important managerial decisions are based on them. Planning and evaluating the accomplishment of these decisions is both necessary and possible with the help of the respective university departments.

The questionnaire contains 10 questions referring to the four branches of Biology: Zoology, Botanics, Animal Physiology, Plant Physiology. 100 students were asked, the most assiduous ones from every section and every year. The percentages of the answers are as follows:

1. Are the opening hours of our branch satisfactory?

	Yes	No	No answer
Zoology	83%	15%	2%
Animal Physiology	46	37	17
Botanics	43	46	11
Plant Physiology	41	51	8

1a. Is the timetable respected? What is unsatisfactory in your opinion?

- not respecting the timetable in the case of branches with only one shift: Botany, Animal Physiology, Plant Physiology
- the afternoon break
- the lack of afternoon service at these branches
- afternoon shifts are too short

1b. What do you suggest?

- respecting the timetable
- longer opening hours
- the break should not overlap with students' break or there should be no break at all
- non-stop services or services until 12pm
- Sunday afternoon opening

2. Study conditions in reading rooms

	good	bad	no answer
Zoology	80%	16%	4%
Animal Physiology	43	26	31
Botany	37	39	24
Plant Physiology	38	39	23

2a. Is there complete silence?

Yes 36% No 60% No answer 4%

Would you like to have loan desks separated from the reading room?

Yes 37% No 42% No answer 17%

2b. Are there enough places?

Yes (at the Zoology) 23%

No (all the other branches) 73%

No answer 4%

2c. How would you solve these problems?

- loan desks should be outside the reading room
- the telephone should not be in the Zoology reading room
- greater number of places (new reading rooms)
- access for Biology students only, Medicine students should not be allowed

3. The behaviour of library employees

	satisfactory	unsatisfactory	no answer
Zoology	86%	11%	3%
Animal Physiology	68	13	19
Botanics	70	19	11
Plant Physiology	79	12	9

4. Do you think open shelves would be efficient in the present circumstances?

	Yes	No	No answer
Zoology	68%	30%	2%
Animal Physiology	53	32	15
Botanics	59	32	9
Plant Physiology	59	35	6

5. Do you ask the librarian for information?

	yes	no	no answer
Zoology	82%	16%	3%
Animal Physiology	61	23	16
Botanics	71	21	8
Plant Physiology	75	20	5

5a. Are the secondary sources of information satisfactory?

	yes	no	no answer
Zoology	55%	37%	8%
Animal Physiology	39	37	24
Botanics	36	42	22
Plant Physiology	45	38	17

6. How often do you come to our branch libraries?

	daily	weekly	Monthly	yearly	no answer
Zoology	18%	48%	27%	3%	4%
Animal Physiology	2	15	35	25	23
Botanics	2	13	46	27	12
Plant Physiology	2	19	52	17	10

7. What special publications do you read in our branch libraries?

manuals	73%
treaties	42%
other books	47%
periodicals	32%
other fields	11%
no answer	3%

8. Are there enough copies of the “required reading” books?

Yes 19% No 72% No answer 9%

8a. Do you prefer borrowing or reading at the library?

Borrowing	78%
Reading at the library	18%
No answer	4%

8b. Do you read the optional bibliography?

Yes 69% No 27% No answer 9%

9. Besides the books in your field would you like to read other books?

Yes 79% No 15% No answer 6%

Books in the related fields 60%

General culture 56%

Literature 9%

10. Suggestions

1. Purchasing new manuals (in Hungarian, especially), at least one copy for every two students
2. Purchasing new speciality books and famous periodicals such as *Nature*, *National Geographic*, *Biofutur*
3. Students should have the possibility of ordering new publications
4. Purchasing certain books from related fields and foreign language courses for borrowing, too
5. Open shelves system
6. Longer loan periods (a semester or a year)
7. Photocopy machine for students
8. Computer and Internet-access for students in the reading room
9. Loan desk outside the reading room
10. No telephone in the reading room
11. Book loan from other branch libraries
12. Silence in the reading rooms
13. Friendlier librarians
14. Branches with only one shift should be open in the afternoons, too; opening hours should be until 6pm
15. In the exam session opening hours should be until 9pm, Sundays until 8pm.
16. Only Biology students should use the library (no access to students from other faculties)
17. Loan desk separated from the Zoology reading room

The table with answers to the questionnaire shows that most readers (83%) are satisfied with library opening hours at the Zoology branch but they do not like opening hours at the other three branches, Botany, Animal Physiology and Plant Physiology (45%).

Regarding study conditions, answers are inconsistent since the majority considers them satisfactory (80% for Zoology, 38% for the other three branches), still, the answer to the subdivision about silence in reading rooms shows that the majority of students

at the Zoology branch are dissatisfied while 37% think there should be isolated loan desks. The insufficiency of reading room places is stated by a majority of 73%.

Most people agree that librarians' behaviour is satisfactory. There is a slight shift towards "unsatisfactory" in the case of the Botany branch which probably refers to the first half of the year 1997.

Most readers (60%) see the efficiency of open shelves in all branches.

The number of readers who ask for librarians' help is slightly more than a medium percentage (70%).

Satisfaction with secondary sources of information is low (45% yes, 38% no, 17% no answer) and makes us think that readers do not know these sources. Therefore library user education is necessary; library employees should guide the readers in using these sources.

As to the frequency of readers, 6% come daily, 24% weekly, 40% monthly, 18% yearly and 12% did not answer. Otherwise, the high percentage of those who do not answer implies that many of our readers do not have a clear idea about libraries.

Publications studied show a high percentage of manuals (73%), followed by treaties (42%), other books (47%), periodicals (32%), publications in other fields (11%) and there is 3% "no answer" (some people have chosen more answers).

The question whether there are enough "required reading" publications in the library is answered affirmatively by only 19%, negatively by 72% and 9% did not answer. This confirms our conclusions based on the statistics.

Most readers prefer borrowing books (78%) to reading them at the library (18%) which again strengthens our opinion that reading room conditions are not entirely satisfactory.

69% of the students answered that they read books from the optional bibliography, 27% do not read and 9% did not answer. This implies that there is a great circulation of books also shown by the statistic analysis at the Zoology branch. Other publications in the related fields are read by 79%, 56% needs general cultural publications and 9% literature.

The detailed analysis of these questionnaires reveals that although some readers did not clearly understand how to fill in the forms (they underlined or ticked their answer instead of circling it), the results are representative for these branch libraries and they correlate with the reader statistics.

Although the statistic analysis of public relations in 1997 cannot be compared to other years since there was no such statistic evaluation, it reveals some notable results obtained in our libraries in spite of precarious conditions.

Taking into account the accuracy of these data we consider that students' answers should be taken seriously. We will certainly do whatever we can but we also need help from the Departments where we belong to. The leadership of the Central University Library should also support us in the University Senate. We hope that sooner or later all the problems will be solved and the importance of library experts will also become unquestionable. Although these problems were known before, nobody took them seriously.

Only taking into account the results of these statistics can every branch library improve their activity, reorganize their reading rooms and collections, separating unused publications and purchasing new material to offer better library services.

APPENDIX

1997			Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	total
Professors	Books	Roman	manuals	24	16	4	116	120	28	16	16	4	16	16	8	384
3108			treaties	20	20	8	48	52	32	56	28	16	20	18	32	360
		Foreign	Hung	4	4	0	4	4	0	0	4	16	0	24	8	68
			French	4	0	4	4	0	0	0	4	4	4	12	8	40
			Engl	8	0	4	8	80	8	0	4	4	4	4	4	128
			Germ	0	0	4	4	0	4	4	0	0	0	8	0	24
			Russ	4	0	0	0	0	0	0	0	0	0	4	8	16
			Italian	0	0	0	0	0	0	4	0	0	0	16	0	20
	Period.	Roman.		0	8	4	0	36	0	12	0	4	8	4	32	108
		Foreign	subscription	16	68	60	188	88	264	80	60	20	120	20	128	1112
			exchange	0	176	28	4	224	0	8	24	0	40	8	292	804
			donation	0	32	0	0	12	0	0	0	0	0	0	0	44
Students:	Books	Roman.	manuals	1810	1918	1162	1726	2550	2158	1678	980	1072	1582	998	905	18539
Biology			treaties	320	332	1000	1236	412	544	424	488	944	636	916	460	7712
28531		Foreign	Hung/m	180	104	232	318	76	284	144	16	144	110	32	104	1744
Geology			Hung/t	92	96	191	108	0	56	188	68	96	21	96	156	1168
1192			French	20	4	20	20	4	4	12	12	32	8	8	32	176
Geography			Engl	68	48	60	80	36	40	84	24	16	8	112	104	680
252			Germ	0	0	76	12	36	4	8	20	0	20	20	60	256
Medicine			Russ	48	8	56	0	0	0	20	4	0	56	36	8	236
1984																
Pharmacy																
144																
Zootechnics																
124																
Chemistry																
60																

Agronomy			Italian	16	0	20	0	0	0	0	4	0	108	8	20	176
132																
Physicist 36	Period	Roman		48	116	152	140	32	32	28	0	16	52	72	416	1104
Imagery C. 20		Foreign	subscription	24	8	28	40	0	0	0	48	0	28	8	0	184
Psychology 40			exchange	16	12	336	36	0	4	20	40	0	40	332	440	1276
33315			donation	20	4	40	0	0	0	0	0	0	0	0	0	64
others	Books	Romanian	manuals	28	16	8	60	172	56	24	28	4	4	20	8	428
4508			treaties	24	32	20	92	80	36	24	20	32	28	56	36	480
		Foreign	Hung	0	0	0	0	0	12	0	0	0	0	12	4	28
			French	12	4	0	8	0	0	4	0	0	0	4	32	64
			Engl	0	16	12	12	24	0	4	4	0	0	28	52	152
			Germ	0	12	4	8	64	4	4	0	0	0	16	112	
			Russ	0	0	0	0	4	4	0	4	0	8	4	4	28
			Italian	4	0	0	0	0	0	0	0	0	0	4	4	12
	Period	Roman		8	8	8	4	36	8	12	32	0	4	4	48	172
		Foreign	subscription	16	112	236	32	48	84	48	44	0	48	44	440	1152
			exchange	8	16	472	28	20	16	76	12	0	16	36	872	1572
			donation	0	4	304	0	0	0	0	0	0	0	0	0	308
TOTAL 40931				2842	3194	4553	4336	4210	3682	2978	1988	2424	2989	2994	4741	40391