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Quality Measures on a National Scale – Comparison of Projects

Roswitha Poll
Germany

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Abstract

Quality measures like performance indicators and user satisfaction surveys are in widespread use in libraries and have been standardized in ISO 11620. Libraries using the same indicator repeatedly can find gaps and failures in their service delivery. But in many cases, it will be difficult to interpret the results without a benchmarking background. Therefore, groups of libraries have tried to find consensus on a common set of indicators that might be used for benchmarking on a national or regional scale.

Such projects have been started in the last years by public libraries as well as academic libraries. In some cases, benchmarking projects were instigated by the funding institutions that want to see the input, output and quality data of their libraries in comparison to others. The paper shows examples where groups of libraries have found consensus on using the same set of indicators on a regular basis and compares the indicators used and the methods of benchmarking. It stresses the difficulties of reaching an agreement when starting a common project and points to results and success of the projects and to problems that occurred in the benchmarking process.

Quality or performance measures for libraries have been developed and tested worldwide and have been described in handbooks and ISO standards. From being applied in individual libraries, the development has gone to sets of such indicators being used by groups of libraries on a regional or even national scale, often for benchmarking purposes. Such projects have been started in the last years by public libraries as well as academic libraries.

There is no lack today of quality indicators for libraries. The revised International Standard for library performance measures¹ will contain 44 indicators with description of methods. Performance indicators measure on the one hand the **effectiveness** in delivering services to users, on the other hand the **cost-effectiveness**, the efficient use of existing resources. Quality would then mean that a service is “good” as well as “cheap”.

The problem for benchmarking projects is to find consensus on indicators that are

- appropriate to the mission and working conditions of the participating libraries,
- informative as to problems and shortcomings in the libraries,
- adequate for demonstrating effectiveness, efficiency and outcome of library services to the funding institutions and the public,
- practical and easy-to-use in the libraries.

The search for the right indicators

An individual library evaluating the quality of its services by using the same performance indicators repeatedly will be able to recognize problems and monitor the success of measures taken for achieving better quality. But in many cases it will be difficult to judge on the results of performance measurement. If e.g. the indicator “shelving accuracy” shows that only 85% of books in the collection are in their right place, the library will of course know that this is not the best result possible. But are 10 loans per year per member of the population good enough? Is it efficient if a staff member in the book processing department handles 2000 media per year? In such cases, the comparison with other libraries of similar structure and clientele illustrates the results and helps to rate the own scores. In order to make such comparison possible, it is necessary that the same procedures of measuring are used.

Example:

In using the performance indicator “Loans per capita” the result may be influenced by what is regarded as a “loan”:

- Only initial loans (without renewals)?
- Are on-site loans included?
- Are perhaps even interlibrary loans included?

Benchmarking is necessary, not only for evaluating the results of performance measurement, but also for showing such results to the funding institutions and the public, that prefer to see statistics and quality measures of their library in the context of other libraries. In several cases, funding institutions have made the first move in library benchmarking projects.

In the beginning of a benchmarking project, it seems easy to find an adequate selection of indicators. Ian Winkworth describes the situation when starting the search for indicators in SCONUL²: “There was initial expectation and enthusiasm that we could rapidly agree on a small set of indicators that would support and fine-tune subjective judgements about the quality of libraries. By the early 1990s, after several years’ efforts, the Advisory Committee faced the common truth that the exercise would be more technically complex and politically difficult than expected.”³ After all, it took five years till a list of only 6 indicators found consensus - one year per indicator?

Literature shows that at the start of a benchmarking project almost always the same criteria for indicators are specified:

The selected set of indicators should

- mirror the full extent of library services,
- consider electronic as well as traditional services,
- help to demonstrate the importance and impact of libraries,
- further comparison between the participating libraries,
- avoid unfair treatment of individual libraries,
- allow for special conditions in the libraries (every library seems to be unique!),
- yield results that are easily understandable, even for politicians,
- and, in spite of all that, consist of only a few measures that should preferably be collected from the normal library statistics.

In sum, it should be an all-in-one device, suitable for every purpose. It is astonishing, that yet several projects have found such sets for continuous use.

Comparison of projects

Benchmarking projects worldwide differ not only in the sets of indicators they apply, but also in the final use of the results. Some publish the results widely, others disclose them only to the participants of the project. Only a few show an overall ranking of the participating libraries.

The following criteria were applied for including projects in the comparison:

- Projects should use combined performance indicators like “loans per capita” or “collection use per year”, not only statistical data like “number of loans” or “collection size”.
- Projects should offer an obligatory set of indicators, not only a list to pick from.
- The indicators should be chosen by or in collaboration with libraries, not exclusively by funding institutions.
- Completed projects (e.g. Finnish University Libraries) were excluded.

Using these criteria left only a few projects for comparison. These are:

1. BIX –Library Index⁴

Type: German public and academic libraries (separate sets of indicators)

Time: Public libraries 1999 ff., academic libraries 2002 ff.

Participants: Over 260 libraries (not all continuously)

Organized by: Bertelsmann Foundation (start); German Library Association (DBV)

Indicators public libraries: 17

Indicators academic libraries: 17

Published: Annual print publication, BIX-website

Ranking: Yes

Specialities: The public library indicators are structured in 4 dimensions: resources, customer focus, efficiency, employee focus.

The academic library indicators are structured according to the Balanced Scorecard⁵: resources/infrastructure, usage, efficiency, development/potentials. The use of the Balanced Scorecard is unique in BIX. It has been used by individual libraries⁶, but not in benchmarking projects.

2. CASL (Council of Australian State Libraries)⁷

Type: Public libraries

Time: 1998 ff.

Participants: All public libraries

Organized by: Data are collected by the individual State or Territory authorities.

Indicators: 8

Published: Printed Report by CASL, but only with accumulated data for the States or

Territories

Ranking: not for the individual libraries

3. Swedish Quality Handbook⁸

Type: All types of libraries

Time: 3-years project 2001-2004; continuation not decided

Participants: nearly 60 libraries

Organized by: Swedish Library Association

Indicators: 12

Published: The results were only accessible for participants

Ranking: no

4. HELMS (UK Higher Education Library Management Statistics)⁹

Type: Academic libraries

Time: 1997/98 ff.

Participants: 174 libraries (members of SCONUL, Society of College, National and University Librarians)

Organized by: LISU, Loughborough University

Indicators: 6 (+ background data)

Published: 2-years print publication by SCONUL

Ranking: no

5. Benchmarking of the University Libraries Netherlands¹⁰

Type: University libraries

Time: 1999 ff.

Participants: 13 libraries

Organized by: UKB (Dutch Association of the 13 university libraries and the National Library of the Netherlands)

Indicators: 24 (additional user surveys)

Published: The results are only accessible for participants

Ranking: no

Specialities: The indicators are structured in 4 dimensions: resources, products and services, efficiency of processes, usage.

Indicators used in the projects

For the purpose of comparison, the indicators used in the 6 projects (BIX seen as two projects) have been classified in the 4 dimensions of the Balanced Scorecard and further subdivisions for resources and services. In addition, they are compared to the ISO Standard 11620 to see whether standardized measures have been used.

Altogether there were 55 indicators, of which only 20 appeared in several projects (15 in 2, 5 in 3 projects), though a nearly corresponding indicator was counted as the same. The individuality of libraries is apparent here. A typical example is that of staff training:

- The ISO standard counts the number of attendances to trainings.
- BIX counts the time expenditure of staff members.
- The Dutch project counts the costs.

The terminology shows a similar variety. When the HELMS measures count “per user”, they do not mean active users but potential users, the members of the population to be served. However, 25 of the 55 indicators are more or less identical to the ISO standard. That means that by using internationally standardized methods results become comparable outside the projects.

The aspect “**Resources/infrastructure**” shows 17 indicators, 6 of them used by several projects. The library’s role as place for learning and research is defined by the size of the user area, the availability of study places and workstations and of course by the opening hours.

Indicators for the quality of information provision are expenditure and media per capita, the renewal rate of the collection and the availability of media. There is only one indicator for the library's teaching role (training lessons per capita) and one for staff resources (staff per capita).

A. Resources, infrastructure: What services does the library offer?

		BIX AL	BIX PL	CASL	SQH	SCONUL	UKB	ISO 11620
Library as place for learning and research	User area in m ² per capita	x	x					x
	Study place hours per week per user					x		
	Workstation hours per capita		x					x
	Opening hours per week	x	x				x	
	Opening hours compared to demand				x			
Collection	Expenditure on information provision per capita	x					x	
	Expenditure on information provision per user					x		
	Expenditure on information provision to total expenditure						x	
	Expenditure on serials to total expenditure on information provision						x	
	Materials (media) per capita		x	x				
	Books added per year per capita						x	
	Serial subscriptions per capita						x	
	Renewal rate		x					
	Availability of required titles							x
	Ratio of items delivered to items received in ILL						x	
	Immediate media availability	x						
User training	Training lessons per capita	x						
Staff	Staff per capita	x	x					x

For the aspect “Usage”, there are 16 indicators, 7 of them used by more than one project. Market penetration (percentage of active users of the population), user satisfaction and the number of visits are used as general indicators for user oriented services. The quality of the collection is assessed by loans and the number of interlibrary loans compared to total loans. Three indicators measure the use of electronic services (sessions on E-media and online catalogue, downloads per electronic journal). BIX intends to use an additional indicator for electronic services: “website visits per capita”. The data collection method for this indicator is in the test phase.

The use of the library's information services is evaluated as to attendances at user trainings and information requests per capita. Only one project (Sweden) evaluates the library's cultural role by counting attendances at cultural events per capita.

B. Usage: How are the services used/accepted?

		BIX AL	BIX PL	CASL	SQH	SCONUL	UKB	ISO 11620
General	Market penetration	x		x	x			x
	Market penetration by remote E-services				x			
	User satisfaction	x			x			x
Library as place for learning and research	Visits per capita	x	x		x			x
	Visits per opening hour		x					
Collection	Collection use/turnover		x		x			x
	Loans in the past year / acquisitions over the past 5 years						x	
	Loans per capita		x	x				x
	Loans per user					x		
	Sessions per capita				x			
	OPAC sessions per capita						x	
	Downloads (average) per E-journal						x	
	Proportion of ILL loans to total loans				x	x	x	
Information services	Attendances at training lessons per capita	x			x			x
	Information requests per capita				x			x
Events	Attendances at events per capita				x			x

There are 14 indicators for the aspect “**Efficiency**”, which shows the importance of demonstrating “value for money” to the funding institutions. 4 indicators are used twice, one (“cost per user”) even thrice. “Costs” in most cases means the total operating expenditure of the library per year.

The expenditure for information provision is set in relation to staff costs in order to assess whether a sufficient part of the budget is spent on the collection. Staff hours are set in comparison to opening hours, staff costs to users, and the allocation of staff resources to background and user services is meant to show whether user services have priority.

The efficiency of processes is evaluated as to speed (of acquisition, media processing, document delivery and interlibrary loan) and correctness (of shelving and interlibrary loan delivery). BIX and the Dutch project take the example of media processing to assess employee productivity (media processed per year per full-time equivalent person).

C. Efficiency: Are the services offered cost-effectively?

		BIX AL	BIX PL	CASL	SQM	SCONUL	UKB	ISO 11620
General	Cost per user	x				x	x	x

	Cost per visit		x					x
Collection	Acquisitions budget per loan		x					
	Ratio of acquisitions expenditure to staff costs	x						x
Staff	Employee hours per opening hour		x					
	Expenditure on staff per user					x		
	Distribution of FTE staff between 1. document acquisition and processing, 2. services to the public, 3. management and support						x	x (user services staff as percentage of total staff)
Processes - speed	Acquisition speed				x		x	x
	Media processing speed				x		x	x
	Employee productivity in media processing	x					similar	x
	Document delivery time						x	x
	Interlibrary loan speed				x			x
Processes - reliability	Shelving accuracy				x			x
	Percentage of successful ILL requests						x	x

The aspect „**Development/potentials**“ was introduced in quality assessment by the Balanced Scorecard. It is certainly important in times of constant change, as it asks for the library’s capability to cope with such change. It has not been easy to find performance indicators for this aspect, as is shown by the small number in the projects (only 8). Only BIX and the Dutch project use such indicators.

The potential for development is assessed on the one hand via electronic services (expenditure on the electronic collection, percentage of staff in electronic services), on the other hand via staff development and motivation (time and money spent on staff training, availability and fluctuation rate of staff). The library’s success in gaining funding from its institution and other sources is also seen as important for coping with future.

D. Development / potentials: Are there sufficient potentials for future development?

		BIX AL	BIX PL	CASL	SQM	SCONUL	UKB	11620
Electronic services	Percentage of expenditure on	x					x	x

	information provision spent on the electronic collection							
	Percentage of library staff providing electronic services	x						x
Staff development and motivation	Hours/days of training per staff member	x	x					
	Expenditure for training per staff member						x	
	Rate of employee availability		x					
	Employee fluctuation rate		x					
Budget	Percentage of library means received by special grants or income generated	x	x				x (only income generated)	x
	Percentage of institutional means allocated to the library	x					x (expenditure instead of means)	x

No indicators for the impact or outcome of libraries on users or society are as yet used in the projects. Such indicators are still in the testing phase and therefore not ready for benchmarking with standardized data collection methods.

User surveys in benchmarking projects

In most benchmarking projects libraries tend to doubt the informative content of one or more indicators, especially when they feel that a certain indicator has an unfavourable influence on their own score. It is quite understandable that every library wants to be in the top group of the benchmarking results.

Arguments against indicators are:

- Some scores might be influenced by special procedures in the libraries and therefore would not be comparable.
Example: Short loan periods or highly efficient claiming routines for overdue loans can lead to a higher number of loans and influence all indicators concerned with loans.
- The scores are affected by conditions outside the library's influence.
Example: Political decisions affecting the funding; new library buildings that lead to higher use.
- Libraries may have special tasks with special funding that affect comparability.
Example: Legal deposit right; special collections with extra funding.
- Some indicators are questioned because they interpret a high amount of effort for electronic services as better quality.
Example: Percentage of expenditure or staff time used for electronic services.

Such problems might give rise to the idea of replacing the scores of performance measurement by the results of user satisfaction surveys, as good performance should in any case be user-oriented. The most used method of surveying users' opinion is that of the project LibQUAL, initiated by the Association of Research Libraries.¹¹ LibQUAL offers a survey

instrument that compares the actual experience of users with the expected quality level and thus assesses gaps in the library's performance.

But it seems questionable to apply user surveys as the only method of evaluation:

- Previous experience can affect the users' perception of quality. Good experience will lead to higher expectation, bad experience to low expectation and therewith higher rating of a service.
- Users may be satisfied without any tangible benefits.
- The answers may be influenced by loyalty to the library. Aspects like "friendliness of staff" will in most cases get good scores.
- The opinion expressed may be momentary (a "snapshot"), affected by external conditions like weather or traffic noise.

User surveys reflect the users' feelings, and objective measuring might come to differing results. If 30 % of items requested for loan are not available at the moment, users will probably rate this as "very frequently", though 70 % of their requests were immediately successful.

BIX (for academic libraries) and the Swedish project have a user satisfaction survey in their indicators' list. The Dutch project has conducted user surveys in addition to the benchmarking. BIX is testing on online survey that could be used by all participants. But it is difficult to include the results of user surveys in the benchmarking. The ranking would probably value only one result, the overall satisfaction with the library's services. It could not consider the detailed answers as to separate services like satisfaction with the existing opening times. But such specific answers could be of high value in each library in evaluating the results of performance measurement.

Is benchmarking worth the effort?

Benchmarking in a group of libraries, using a common set of performance indicators and comparing the results, can have various advantages for the participants.

Positive results for the internal library organization are:

- The possibility to judge on the own results by comparison
- The help in finding problems in processes and organization
- The possibility of sharing experience with "best practice" libraries
- Higher awareness and acceptance of evaluation and controlling procedures in the library

Advantages for the external presentation of the library can be:

- Transparency of resources spent and quality achieved
- Higher attention to the library and its services by the presentation of results
- Higher credibility of the library's reports, the common project giving a kind of guarantee for neutrality

But experience shows, that there can also be disadvantages for the participants:

- If the data are not checked and controlled by the collecting institution, wrong input or data caused by unique situations (e.g. an unusually high number of acquired books because of a merging) may impair the comparability of results.
- The publication of the benchmarking results can be harmful to libraries with bad results, but it might – as experience shows – be also damaging to the library with the best results. Funding institutions might think that the library has apparently too many resources.
- When trying to achieve better results in the next benchmarking process, libraries might postpone other important changes.
- Voluntary participation is problematic, as a frequent change in participants will affect the comparability of results over years.

Benchmarking projects cannot offer ready-made solutions for each library. They can point to problems and shortcomings, show possible actions to be taken and monitor improvements over time. Specific management decisions will need additional information about each special problem.

After three years of the Dutch benchmarking project, the experience was summarized thus:

“We conclude by saying that the development of a benchmarking system is no small undertaking and that the set of instruments used by the Dutch libraries is still far from perfect, but that, in our view, the value of benchmarking as a proven tool to achieve quality management should be rated very highly indeed”.¹²

Looking at the effort of achieving reliable and helpful data in a group of benchmarking libraries, the idea suggests itself whether it might not be possible to use just one indicator or measure for evaluating and comparing library quality. At a late hour in a meeting of quality experts, such a unique measure was suggested:

“Percentage of users smiling when they leave the library” (observed by a camera)

But the counter argument was convincing:

This indicator would very susceptible to the outside weather conditions.

“The search for an ultimate measure of benefit may be illusory”¹³

¹ ISO DIS 11620 (2006) Information and documentation – Library performance indicators

² SCONUL. Society of College, National and University Librarians

³ Winkworth, Ian: Performance measurement of U.K. university libraries. In: ARL Bimonthly Report 207 (1999) <http://www.arl.org/newsltr/207/ukperfmeas.html>

⁴ <http://www.bix-bibliotheksindex.de/>

⁵ Kaplan, Robert S. and David P. Norton: The Balanced Scorecard: Translating Strategy into Action. Boston 1996

⁶ e.g. University of Virginia Library, USA <http://www.lib.virginia.edu/bsc/index.html>; Deakin University, Australia <http://www.ifla.org/IV/ifla68/papers/123-106e.pdf>; Royal Library Copenhagen (LIBER Quarterly 14,1, 2004) <http://liber.library.uu.nl/>; University of Pretoria, South Africa <http://www.librijournal.org/pdf/2000-3pp202-209.pdf>

⁷ Australian Public Libraries Comparative Report 1998 – 2004 <http://www.casl.org.au/papers.and.publications.cfm>

⁸ <http://www.biblioteksforeningen.org/>

⁹ UK Higher Education Management Statistics 2003-2004. Sconul 2005

¹⁰ <http://www.ukb.nl/benchmark.htm>

¹¹ <http://www.libqual.org>

¹² Laeven, Hubert, Anja Smit: A project to benchmark university libraries in The Netherlands. In: Library Management 24 (2003), p.291-304. <http://www.ukb.nl/benchmark.htm>

¹³ Revill, Don : Performance Measures for Academic Libraries. In Kent, E. (Ed.) Encyclopedia of Library and Information Science, Dekker: New York, Basel (1990), p.333