THE SWEDISH LIBRARY ASSOCIATION’S SPECIAL INTEREST GROUP FOR QUALITY MANAGEMENT AND STATISTICS

Quality Handbook

Performance indicators for library activities

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Introduction

> *"... the ultimate criterion for assessing the quality of a service is its capability for meeting the user needs it is intended to serve, and that the value of a service must ultimately be judged in terms of the beneficial effects accruing from its use as viewed by those who sustain the cost."*

This quotation comes from Richard M. Orr's now classic article from 1973. This text has since then been the starting point or source of inspiration for much of what has been said and done concerning measurements in the field of library quality assessment.

There are four main reasons for measuring libraries. The first and perhaps the most important reason is to find out the users' opinion of the service provided, the range of literature available, and the treatment by staff, etc. Our users constitute the ultimate "commissioning body" and must have the final say in determining the direction in which the library is to develop.

The second reason is to ascertain how people use the library. Nowadays, with new developments in technology and the different range of services available, previous traditional measures are inadequate. We have to find out how people are using our expanding digital collections, how our computer workstations are being utilised, how the printed collections are used in situ, and how much user education is provided by the library, among many other things.

The third reason is to provide our funding bodies with descriptions of our activities. Not in terms of all the different activities carried out in a library, but rather in terms of what and how much these bodies obtain for their money. Is the library run in such a way that the objectives set are achieved in a cost-effective way?

The fourth reason is to find out how efficient the internal processes in a library are. To measure how long it takes to purchase or catalogue an item. To measure how efficiently the circulation and reference processes function. To succeed not only in doing the right things, but also in doing them right.

There are two additional reasons for measuring libraries which provide a different dimension than the above-mentioned. Firstly, it is not the results that are important, but rather the road to their achievement. A measurement process in which many members of staff are involved and where no stone is left unturned will, in addition to a great quantity of results in the form of figures and diagrams, provide everyone with an increased awareness of the way in which the organisation functions. The competence and interest of staff will increase.

Secondly, it is always interesting and useful to be able to make comparisons between libraries. By choosing a smaller number of indicators and attempting to ensure that all libraries use the same measurement method, we hope that it will be possible to produce reasonably fair comparisons between different libraries

However, probably the most rewarding aspect is the interest that will be aroused by the results. Many people, including both users and commissioning bodies, as well as colleagues both within the organisation and at other libraries, will pounce on the results, scrutinise them closely and make comparisons, and will give praise and criticism. In short, interest in our tasks and how we fulfil these tasks will increase in a pronounced manner.

Using the handbook

General background
When the decision has been taken to build up a quality management system in the library, one is often confronted with the problem of not knowing where to begin. There are many different models available and a multitude of ideas and opinions about the best and most efficient way to evaluate and enhance the library's activities.

This handbook is based on an extremely concrete way of working with quality improvement in libraries. Measurements are performed with a view to ascertaining the status quo at the library and, with the results at hand, the following questions can be posed: "Are we satisfied with this? How good are other libraries at this? How can we improve our performance?"

The measurements described in the handbook are based on so-called performance indicators, i.e. measures consisting of statistical data that are related to other statistical data. Instead of stating how many books a library lends to its users during a year, one states how many loans per person in the library's target population are executed in one year. In this way libraries of different size and types can be compared with each other. In addition, this makes it possible to compare the library's own results over time, in spite of the fact that the target population may increase or decrease, for example.

Aim
The target group for this document comprises all types of libraries. However, the handbook is perhaps primarily directed at those libraries that do not have the resources to build up their own quality management system from scratch, but still want to start somewhere. The handbook constitutes the point of departure for a co-operation project which started in 2002 and has been run for three years by the *Swedish Library Association's Special Interest Group for Quality Management and Statistics*. The aim of the project is to enable libraries to start conducting systematic quality management and at the same time obtain the possibility of discussing and comparing themselves with other libraries. Of course, the handbook may also be used either in its entirety or partially by those libraries which do not choose to participate in the co-operation project.

The primary aim of the *Quality Handbook* is to disseminate knowledge and understanding concerning the use of performance indicators for the evaluation of library activities.

Handbooks and manuals in this field are frequently criticised for being too comprehensive. They contain too many indicators, and after an evaluation process it is difficult to motivate oneself to carry out follow-up studies and perform a re-evaluation. At the same time it is pointed out in the same handbooks and manuals that it is important to repeat one's evaluations to be able to make comparisons over time. In this manual there are at present twelve indicators. We have reached the conclusion that this is a manageable number of indicators and that the collection of data for these twelve measures on an annual basis is a reasonable task. The idea is that the indicators are to be used as a basic set which is to be supplemented with others according to local needs.

The indicators have been taken mainly from ISO 11620 – *Information and Documentation – Library Performance Indicators* – an international standard with indicators for libraries. The standard has been prepared for all types of libraries and has therefore not been specially adapted for either public or research libraries.

The measures are neither absolute nor perfect. The indicators *indicate* and do not provide any undisputed truth. The indicators must be used if they are to be improved, and they are developed and refined while one is working with them.

The handbook is not a complete tool for operational control or follow-up of target fulfilment. Such a tool must always be designed according to the specific needs and objectives of each individual library. However, the handbook and the co-operation project based on it can constitute a springboard to assist libraries in starting to evaluate and follow up their activities. The work involved in collecting the basic data for the indicators will provide experience, increased competence and knowledge. This will nourish new ideas concerning the evaluation of the library's activities and will be of use to those who want to build up a quality management system in their organisation. It may even be maintained perhaps that the actual work performed in connection with quality management is just as important as the results.

Comparisons – learning from the best

Since the libraries participating in the co-operation project prepare reports publicising the results of their measurements, they are given the possibility of studying each other's results and thereby obtain supporting data for comparisons. Of course, it is not a question of some kind of competition. The aim of the comparisons is that the libraries which want to enhance their quality will be able to contact other libraries to make use of their knowledge and experience. This method of quality enhancement is called the "best practice" method.

When comparing different libraries, one should not, of course, "compare apples and pears". The results from a large university library cannot be compared with those from a small public library. Even if all libraries can use the measurements, comparisons should only be made between libraries of the same type. For example, one cannot, with regard to user education, compare a municipal library's surfing courses for senior citizens with a university library's courses in information literacy for undergraduates. It is therefore also important that basic data on the libraries, e.g. the size of the target population, the budget and the number of loans, should be available as background material.

The co-operation project

A three-year co-operation project based on the Quality Handbook was initiated by the Swedish Library Association in January 2002. The participating libraries undertook to:

- perform the measurements described in the handbook during 2002-2004. All the twelve indicators are to be used, insofar as they concern services available at the library in question;

- report the results of the measurements to the Steering Group of the Special Interest Group;

- consent to the results of the measurements being made available;
- appoint a contact person who will be responsible for contacts with the Steering Group, for the measurements being performed and for the results being reported by the time appointed;
- inform the Steering Group if the contact person is changed.

The Steering Group of the Special Interest Group for Quality Management and Statistics administered and co-ordinated the project, provided a certain amount of support, and ensured that the libraries gain access to each other's results.

Contact is made between the Steering Group and the contact persons at the participating libraries through a closed Internet discussion list.

The measurements within the co-operation project
The libraries participating in the co-operation project undertook during a three-year period to use all the indicators in the handbook and report the results.

To obtain the indicators, libraries must procure certain statistics on an annual basis, carry out random measurements, and conduct a questionnaire survey each year.

The library's target population
For many of the indicators, the figures must be related to the library's target population. Each library must carefully define its target population and ascertain how many people it includes (see p. 12).

Statistics
To obtain supporting data for the indicators, the following statistics must be collected for the whole year (January-December). Part of these statistics are in Sweden already being compiled by libraries and are included in the national statistics that are annually collected.

- programme/activity attendances (indicator 8)
- library visits (if there is no door counter, this figure can be extrapolated based on random sampling, see indicator 6)
- number of search sessions on the Web site, OPAC, and possibly other optional databases (indicator 5)
- number of loans (indicator 10 and 11)
- collection turnover (indicator 11)
- number of interlibrary loans (indicator 10)

Random measurements
Certain indicators consist of data that must be collected through different random samples and measurements:

- median time for document acquisition (indicator 9)
- misshelving (indicator 12)
- number of information requests (indicator 7)

Questionnaire survey
Each year the participating libraries are to conduct a questionnaire survey and report the results. The indicators to be covered by the study are:

- user satisfaction (indicator 1)
- opening hours compared to demand (indicator 2)
- percentage of the target population reached by the library's services (indicator 3)
- percentage of the target population reached by remote electronic library services (indicator 4)

The questionnaire survey can be conducted on the basis of either

- a questionnaire that includes indicator 1-4 and is distributed outside the library

or

- two questionnaires: one distributed on the library's premises (indicator 1 and 2) and one conducted outside the library's premises (indicator 3-4)

The questions that are to be included are presented in the Handbook, but, of course, it is also possible to include other questions according to the library's needs.

Time schedule for the measurements within the co-operation project
To achieve the best comparison possible, the measurements took place within the same month at all the libraries. This means that, within the framework of that month, one is free to choose the most suitable week for the measurement. It is important that the measurements should be carried out during "normal weeks", i.e. not directly in connection with a major public holiday or special local events.

The following time schedule was to be followed by all the libraries participating in the co-operation project in Sweden 2002, 2003 and 2004:

January-December: Data for indicator 5, 6, 8, 10 and 11 are collected continually during the whole year and reports are to be sent by the end of March in the following year at the latest.

January: Data for indicator 12 (the number of misshelved books in the library's collections) are collected during one optional week this month. The result is to be sent by the end of February in the same year at the latest.

February: Data for indicator 7 (number of information requests per member of the target population) are collected during one optional week this month. The result is to be sent by the end of March in the same year at the latest.

March: No measurements in addition to the routine collection of statistics. Time to prepare the questionnaire survey.

April: The questionnaire survey is carried out during one optional week this month. The questionnaire comprises indicator 1, 2, 3 and 4. The result is to be sent by the end of August in the same year at the latest.

May – August: No measurements in addition to the routine collection of statistics. Time to compile the results of the questionnaire survey and prepare the process measurement (indicator 9).

September - : The measurement for indicator 9 (median time for document acquisition) is started this month. Since the measurement is to concern 50 – 100 acquisitions, the library itself may determine how many weeks during this month measurement forms are to be supplied. The measurement is to continue until all the acquisitions to be measured are ready. The result is to be sent by the end of December in the same year at the latest.

October: No measurements in addition to the routine collection of statistics and the ongoing process measurement started in September.

November: Data for indicator 7 (number of information requests per member of the target population) are collected during one optional week this month. The result is to be sent by the end of December in the same year at the latest.

December: No measurements in addition to the routine collection of statistics and the ongoing process measurement started in September.

Extent of the measurements

It is preferable if the measurements can embrace the entirety of the library's operations, and the ideal situation would be if both the main library and its branches could be included. If it is impossible to obtain figures from all parts of the organisation, the target population calculations, for example, must be adapted accordingly.

Abbreviations

ISO (+number)
Measurement originating in the international standard ISO 11620, “Information and Documentation – Library Performance Indicators” (see References)

DM (+number)
Measurement originating in the PROLIB report, “Library Performance Indicators & Library Management Models” (see References)

IFLA (+number)
Measurement originating in the IFLA manual, “Measuring Quality: International Guidelines for Performance Measurement in Academic Libraries” (see References)

EAL (+number)
Measurement originating in a report from the UK Joint Funding Council entitled “The Effective Academic Library” (see References)

EQUINOX
Measurement originating in the EU-project EQUINOX, which has developed indicators for the electronic library (see References)

Definitions of terms

Electronic service
An electronic service is a service which is either stored on a server or accessible via a network. Examples of electronic services are OPACs, databases, electronic journals, e-books and the library's own Web site.

Included in the term "Web site" are the library's different domains on the Internet, under which different unique URLs (Uniform Resource Locators) with different files, HTML pages and graphic elements can be located. This is normally a question of homepages connected with the help of hypertext links. Documents that can be defined as electronic resources (e.g. licensed databases) or external Internet resources to which there are links from the library's Web site are not regarded as belonging to the Web site.

Target population
The target population consists of those persons whom the library is intended to provide with services and materials.

- Public libraries: the population in the area which the library is intended to serve (number of people).
- Academic and other libraries at educational institutions (e.g. school libraries): students and researchers, teachers and other staff at the educational institution (number of people).
- Company libraries and government agency libraries: staff of the parent organisation (number of people).
- Hospital libraries: if the assignment is to serve patients, staff and the patients' relatives/nearest and dearest, as a rule one includes the members of staff (number of people), the number of beds and one relative per hospital bed.

On the basis of the above-mentioned guidelines, the libraries themselves must define and quantify their target population, according to their assignment and their objectives.

Information request
An information request is an information contact (embracing knowledge, use, recommendations, interpretation or instructions) between a member of staff and a user concerning how to use one or more information sources.

Note that an information request may be made in other ways than in person across an information desk, e.g. at a circulation desk, among the shelves, by telephone, traditional mail, or fax, or through electronic media such as e-mail, ICQ or chat services, etc.

Note too that many transactions that facilitate the use of the library do not at all involve knowledge, use or interpretation of, or recommendations or instructions for some information source. Such transactions are not regarded as information requests. Examples of such requests are: information as to the whereabouts of staff or patrons in the library, or assistance (of a non-bibliographic nature) in using technical equipment.

Questions asking “Where can I find...” and questions concerning the location of material that has already been bibliographically verified are not regarded as information requests. If a patron has found a book in a catalogue and wants to know where it is placed, this is not an information request either.

Requests to suggest books of fiction are regarded as information requests when staff give recommendations involving the use of their knowledge.

A request to verify titles in the OPAC is not regarded as an information request. However, if the staff needs to find alternatives or provide recommendations, or if the patron’s information is wrong or insufficient, this may develop into an information request.

Any single person can make several consecutive information requests.

Session
“Session” is used to mean a connection made to an electronic service, normally through a log-in.

A session is a cycle of user activities which, as a rule, starts when the user connects to an electronic resource and ends with an explicit or implicit termination of these activities. An *explicit* termination involves the user leaving the database or logging out, while an *implicit* termination occurs through a time-out caused by the user being inactive. During any single session the user can carry out several activities, such as searches, the downloading of documents, the use of indexes, etc.

In some cases, several persons, the one after the other, may take turns using the same computer, and it may not be possible to distinguish the different sessions from each other. In most systems a session is terminated after a specified period of inactivity on the part of the user, which partially solves this problem. The average time-out period should be 30 minutes. If another period is used, this should be reported.

In the case of external resources purchased through licence agreements, for example, information on the number of sessions can normally be obtained from the database supplier. Concerning databases containing several smaller databases, information should be obtained for each database included.

Sessions at the library’s Web site are regarded as virtual visits. By “virtual visits” we mean visits to (sessions at) the library’s Web site. All visits to any of the library’s URLs from a Web page with a different domain address from the library’s own (i.e. from a referring page) are logged with the help of a Web statistics program. A virtual visit occurs when a user establishes a connection with the library’s Web site, irrespective of how many files or elements the user connects to. If, for example, the user establishes a connection with 16 HTML pages and 54 graphic elements while he or she is at the library’s Web site, this is to be registered as *one* visit.

Hits from search robots logging into the Web site to search for relevant words and terms should, if possible, be excluded. A virtual visit is considered to be terminated after a specified period of inactivity on the part of the user, i.e. after a so-called time-out. The average time-out period should be 30 minutes. If another period is used, this should be reported. In some cases, several persons, the one after the other, may take turns using the same computer, and it may not be possible to distinguish the different sessions from each other.

Performance indicators

The following is a description of the indicators which have been found the most relevant. They are presented according to a widely accepted template for performance indicators:

Title of the indicator
Which *standard* it could be compared to
The indicator's *objective*: what it is meant to measure
Definition: how the indicator is calculated
Method for collecting data for the indicator and how to calculate the result
Scope: which libraries the indicator can be used for
Interpretation and factors affecting the indicator: definitions that are important, different factors that can influence the result in a certain direction, how the result is to be interpreted, and what the indicator is not a measure of.
Example: fictive case.

Indicators:

1. User satisfaction
2. Opening hours compared to demand
3. Percentage of the target population reached
4. Percentage of the target population reached by remote electronic library services
5. Number of sessions on each electronic library service per member of the target population
6. Library visits per member of the target population
7. Number of information requests per member of the target population
8. Programme/activity attendances per member of the target population
9. Median time for document acquisition/Median time for document processing
10. Proportion of interlibrary loans to total loans
11. Collection turnover
12. Misshelving

1. User satisfaction
(Compare: ISO 11620 B.1.1.1)

Objective:
To measure the extent to which the library's users are satisfied with the library's service level on the whole and with the different services offered by the library.

Definition:
Using a scale from 1 to 5, with 1 as the lowest grade, users rate the library as a whole on the one hand, and the different services in the library, on the other hand.

Method:
A questionnaire study. The questionnaire can be distributed using different methods. It can be distributed manually, sent by e-mail or traditional mail, or made available through the library's Web site, etc. The questionnaire is not to be answered by children (persons under 15). It must include the three questions listed below, but it can be supplemented with additional questions according to the library's requirements. If the questionnaire is distributed to visitors on the library's premises, this is to take place at different times of the day evenly spread over one week.

The average user satisfaction for each service or function in the library is:

A/B

A: The sum of the grades allocated by the users to each service or function
B: The number of persons who have answered the questions

Round off to one decimal point. The indicator is calculated and reported separately for each question in the questionnaire.

How satisfied are you with the library?
Rate the library according to a scale of 1-5, where 1 is the lowest grade and 5 the highest.

How satisfied are you with the service level at the library?	1 2 3 4 5
How satisfied are you with the library's opening hours?	1 2 3 4 5
How satisfied are you with your visit to the library today?	1 2 3 4 5

Scope:
All libraries.

Interpretation and factors affecting the indicator:
The visitors' experiences of the library are subjective, of course, and depend on individual factors and circumstances at the time of the survey. An important factor is their expectations. If a visitor does not have any expectations of high-quality service, they may be satisfied with lower quality.

The questionnaire survey indicates any possible areas of problems. If the result shows that the users are dissatisfied with a certain function, then the library should identify the exact nature of the problem, take measures to solve the problem, and afterwards conduct a new questionnaire survey to see if the result will have improved.

The answers to the above-mentioned questions are to be reported to the co-operation project.

These questions may of course be supplemented with others according to the library's needs, e.g. "How satisfied are you with the lending service?" – "How satisfied are you with the interlibrary lending service?" – "How satisfied are you with the copying facilities?" – "How satisfied are you with the library's display of its collections?" – "How satisfied are you with the availability of reading places?" However, the answers to these additional questions are not to be reported to the project.

It is also possible to supplement the grading of satisfaction with a grading of the importance of the service in question.

	How satisfied are you?	How important is this?
Treatment by staff	1 2 3 4 5	1 2 3 4 5

One can then calculate the difference between how important a service is considered to be and how satisfied the user is with the service at present. A large negative difference indicates that a service which is considered important does not run satisfactorily at present. A large positive difference indicates that the service in question is not considered so important, but is run by the library in a satisfactory way. A small difference indicates that there is a balance between how important the service is and how well it is run.

Example:
A questionnaire was distributed to the visitors at Literary Heights Library. Concerning question 1 (service level), the sum of the grades allocated by those who filled in the questionnaire was 2450. Seven hundred questionnaires were answered and returned to the library.

$$2450/700=3.5$$

The result for question 1 is 3.5.

2. Opening hours compared to demand
(Compare: IFLA 2)

Objective:
To investigate whether the library's opening hours meet the users' needs. There is often a discrepancy between the opening hours desired by the users and the opening hours which it is possible to provide on the basis of the library's financial situation and personnel resources. Even if developments with regard to electronic resources are making some of the library's services available 24 hours a day, there is still a great need for borrowing books or using printed materials on library premises. By measuring this need, one obtains supporting data for decisions on opening hours.

Definition:
This indicator gives a measure of the difference between the opening hours provided by the library and the users' wishes. Here "opening hours" is used to mean the average time during which the library's premises are open from Monday to Sunday. A library is defined as open if its premises and the majority of its services are available.

Method:
Different methods can be used to distribute the questionnaire: it can be distributed manually, sent by e-mail or traditional mail, or made available on the library's Web site, etc. The questionnaire is not to be answered by children (persons under 15). If one distributes the questionnaire to visitors on library premises, it is important that the questionnaire should also be distributed in the evening and at weekends so that visitors coming then may not be discriminated against. The question below may be included in another questionnaire survey, e.g. the survey for indicator 1 "User satisfaction".

In the table below the library's opening hours are marked with X. Specify the other times of the day when you would like the library to be open to its users.

	Monday	Tuesday	Wed.	Thurs.	Friday	Saturday	Sunday
0-6							
6-7							
7-8							
8-9	X	X	X	X	X		
9-10	X	X	X	X	X		
10-11	X	X	X	X	X		
11-12	X	X	X	X	X	X	
12-13	X	X	X	X	X	X	
13-14	X	X	X	X	X	X	
14-15	X	X	X	X	X	X	
15-16	X	X	X	X	X	X	
16-17	X	X	X	X	X	X	
17-18	X	X	X	X	X	X	
18-19	X	X	X	X			
19-20	X	X	X	X			
20-21							
21-22							
22-23							
23-24							

On the basis of the answers to the questionnaire, one can find out how many are dissatisfied with the present opening hours. One can also calculate the relation between the present opening hours and those desired by the respondents:

A/B

A: The number of hours during which the library is open during a week (marked with "X" above).
B: The number of hours which the users state that they need (the sum of the hours marked in the table by the visitors and the hours previously marked).

Scope:
All libraries which are open to users.

Interpretation and factors affecting the indicator:
The indicator does not show whether the present opening hours are too generous, i.e. whether the availability exceeds the needs. It is generally the case, however, that users wish to have extended opening hours.

The library has to decide which demands are reasonable and which are unreasonable. To determine how reasonable demands are, one can compare the library's opening hours with those of other libraries.

Many libraries have different opening hours during the summer or major public holidays, for example. Branch libraries and different departments within the library may also have different opening hours. If this is the case, it is best to conduct the survey separately for these branches and departments. For comparisons with other libraries, only the regular opening hours are measured.

Example:
Beechwood Library is open 40 hours per week. Through a questionnaire survey it was ascertained that the users consider that they need a library that is open 50 hours a week.

40/50=0.8

The result of the survey is 0.8.

3. Percentage of the target population reached
(Compare: ISO 11620 B.2.1.1)

Objective:
To measure how big a proportion of the target population is reached by the library's services.

Definition:
This indicator gives a measure of the extent to which the target population uses the library. A "user" is defined as a person belonging to the target population who has used the library during the past year.

Method:
The question is posed in a questionnaire. Different methods can be used to distribute the questionnaire: it can be distributed manually, sent by e-mail or traditional mail, or made available on the library's Web site, etc. The questionnaire survey can also be conducted through interviews. It is important to reach persons outside the library's premises. The questionnaire is not to be answered by children (persons under 15).

Have you used the library during the past year? ❑ Yes ❑ No

The number of persons who have answered the question with "yes" is divided by the total number of persons asked. The result is converted to a percentage.

A: The number of persons who have used the library's services during the past year
B: The number of persons in the survey

A/B *100

The figure is rounded off to the nearest whole number.

Scope:
All libraries

Interpretation and factors affecting the indicator:
The result is a whole number between 0 and 100, and the higher the figure is, the better the library is at reaching its target population.

The measurement is performed outside the library, but within the target population. "Outside the library" is defined as "outside the library's premises". If the library operates within a parent organisation, one regards the use of the library within the parent organisation, but outside the library's premises, as being use outside the library.

It is to be recommended that the survey should also include indicator 4 "Percentage of the target population reached by remote electronic library services".

Example:
In a questionnaire survey in a town district called Edification Island, 550 people were asked whether they had used the services of Edification Island's library during the past year. Two hundred respondents answered that they had done so.

200/550*100=36

The result for the indicator is 36%.

4. Percentage of the target population reached by remote electronic library services

Objective:
To measure how big a proportion of the target population is reached by remote electronic library services.

Definition:
This indicator gives a measure of the extent to which the target population is reached by remote electronic library services (see p. 12). The users who fill in the questionnaire may answer “yes”, “no” or “do not know” to the question of whether they have used the library’s electronic services outside the library.

Method:
The question is posed in a questionnaire. Different methods can be used to distribute the questionnaire: it can be distributed manually, sent by e-mail or traditional mail, or made available on the library’s Web site, etc. The questionnaire survey can also be conducted through interviews. It is important to reach persons outside the library’s premises. The questionnaire is not to be answered by children (persons under 15).

> Have you used the library’s electronic services in any other place than on the library’s premises during the past year?
> - ❑ Yes
> - ❑ No
> - ❑ Do not know

A/B*100

A: The number of persons who have stated that they have used the library’s electronic services outside the library during the past year
B: The number of persons who have answered the question

Scope:
All libraries with electronic services which can be reached from outside the library.

Interpretation and factors affecting the indicator:
Electronic services include the library’s OPAC and Web site, and databases provided by the library, etc. (see p. 12). This survey only concerns the use of those electronic services which do not have to be used by patrons on library premises, e.g. the library’s Web site and OPAC.

The measurement is performed outside the library, but within its target population. “Outside the library” is defined as “outside the library’s premises”. If the library operates within a parent organisation, one regards the use of the library within the parent organisation, but outside the library’s premises, as being use outside the library.

It is to be recommended that the survey should also comprise indicator 3 “Percentage of the target population reached”.

Example:
At Multimedia Square, 978 people were asked whether they had used any of the library's electronic services outside the library at any time during the past year. The number of people who stated that they had done so amounted to 623.

623/978*100=64

Sixty-four percent of the respondents had on some occasion during the past year used the library's electronic services outside the library's premises.

5. Number of sessions on each electronic library service per member of the target population
(Compare: EQUINOX)

Objective:
To measure the extent to which the library's electronic services are used. One additional purpose is to acquire common experience within the co-operation project of measurement of the use of electronic services, so that we will in the future be able to refine measurements and methods, and identify sources of errors.

Definition:
The total number of sessions for every electronic service (primarily the library's OPAC and Web site) during one year, divided by the number of people in the target population.

Method:
The number of sessions for licensed electronic services is obtained through the suppliers' statistics. The number of sessions for the OPAC is procured through the supplier of the library computer system. The number of sessions for the library's Web site (so-called virtual visits) is acquired through analysing the log files with the help of a Web statistics program (see p. 13).

A: The number of sessions for every electronic service during one year
B: The number of people in the target population

A/B

Scope:
All libraries with electronic services.

Interpretation and factors affecting the indicator:
The result will be a figure without an upper limit. A higher figure indicates that the library is succeeding in reaching its target population with its services to a higher degree.

In the case of electronic information services with limited access, one can assume that the search sessions are being carried out by people from the target population. In the case of other services, it is not possible with this indicator to separate members of the target population from those who do not belong to the target population. The number of search sessions is related to the size of the target population, which indicates the extent of the activities.

Libraries do not need to measure all of their electronic information sources within the framework of the co-operation project. For comparisons over time and with other libraries, the figures for sessions at the library's Web site (virtual visits) and on the library's OPAC are to be presented above all. Statistics from additional electronic resources may be presented if it is clearly stated which database is concerned. Even if this is not compulsory, it is to be recommended, since it may be interesting to compare the usage statistics for the different libraries.

With regard to virtual visits (usually called sessions or visits), the result is influenced by

- the logging standard
- the Web statistics program being used
- the settings that are made
- browser caching and server caching, which reduce the number of sessions [Caching is used so that we can quickly fetch a page which we have looked at previously. Browser caching can influence the settings in the browser so that it will check if the Web site which one has visited previously has been updated. If this is the case, a new version is fetched from the server and this is counted as a visit. Server caching works in such a way that, if I am looking at a page which someone else who is using the same server has recently looked at, the page is fetched from the local server and not from the server where the Web site is located. In this case no visit is registered.]
- the use of plug-ins (e.g. JavaScript)
- the use of dynamic pages
- visits from search robots which log into the page to search for relevant terms [Such visits can in most cases not be filtered off.]

It is extremely important to document the settings, software, and other information that can influence the result, so that comparisons may be related to this.

It is important that one should not confuse the number of sessions with the number of “hits”, “requests” or other measures which specify the number of documents downloaded at the Web site.

Sessions on the OPAC are influenced by the time-out period that is set. If it is different from 30 minutes, this should be stated. Data on the number of sessions on the OPAC are obtained from the system supplier.

Information on the number of sessions for the other electronic services, e.g. databases, e-journals and e-books, are also acquired from the suppliers. The usage statistics for different suppliers have not yet been standardised, and one should therefore check whether the supplier’s definition of the term “session” is in agreement with the definition used here. Sessions are usually referred to as “sessions”, “logins” or “visits”, but the terms which different suppliers use are not standardised either.

Example:
Storköping has 100,000 inhabitants.

Bigtown City Library has made great efforts to develop its Web site. It has acquired a Web statistics program which analyses the log files for usage of the Web site. With this program each month they extract data on the number of sessions. At the end of the year it could be ascertained that users had made 300,000 visits to (carried out 300,000 sessions on) their Web site, according to the data extracted from their software.

300,000/100,000= 3

The City Library also wanted to know the extent to which their newly purchased OPAC was used by the inhabitants of the municipality. The library was informed by the supplier that at the end of the year the OPAC had been used 200,000 times.

200,000/100,000=2

The year after that, Storköping’s population increased to 101,000. The number of visits to the Web site then increased to 400,000, while the OPAC usage remained at 200,000 sessions.

400,000/101,000=3.96,   200,000/101,000=1.98

6. Library visits per member of the target population
(Compare: ISO 11620 B.2.1.3)

Objective:
To investigate how big a proportion of the library's target population visits the library.

Definition:
Measure of the extent to which the target population visits the library physically by counting the number of people coming through the door during a year and relating this to the size of the target population.

Method:
The number of visits to the library during a certain period is divided by the number of people in the target population.

A: The number of visits during a year
B: The number of people in the target population

A/B

Scope:
All libraries

Interpretation and factors affecting the indicator:
The measure can be interpreted positively or negatively, depending on the requirements of the library. It may be the policy of the library that as few people as possible should visit the library physically, and that as many as possible should use its electronic services instead.

In the measurement for this indicator it is impossible to separate members of the target population from those who do not belong to the target population. The reason why the number of visits is related to the size of the target population is to give an indication of the relation between the visitor statistics and the extent of the library's activities.

Those libraries which have door counters at their entrance/exit use the figures coming from these devices, and, if people entering and exiting are recorded by the same door counter, the figure is halved. The total number of visits per year can be calculated by extrapolation.

Use the same figures as those reported to the national SCB statistics via the National Council for Cultural Affairs or BIBSAM each year according to the collection methods specified there. Random sampling may be used.

Example:
Trollmora Library has installed a door counter at the exit from the main library and at the three branch libraries. At the end of the year, the counter indicated that 3,000 people had entered the main library and 1,000 had entered each branch.

Trollmora Municipality has a population of 18,600.

(6,000/18,600)= 0,3

During the year Trollmora’s inhabitants had visited the library 0,3 times in average. The library staff at Trollmora were not happy about the figures, but started immediately to plan a campaign to get their inhabitants to come to the library.

7. Number of information requests per member of the target population (Compare: DM G12)

Objective:
To measure the usage of the library's reference service.

Method:
On two occasions each year (for one week each time), the library counts all the information requests (see p. 12) that are received by the library staff across library counters or by telephone or e-mail, etc. The total number of information requests during a year is then estimated by extrapolation.

A: The number of information requests during one year
B: The number of people in the target population

A/B

SERVICE POINT:	
Date	**Number of information requests**
Monday dd/mm	
Tuesday dd/mm	
Wednesday dd/mm	
Thursday dd/mm	
Friday dd/mm	
Saturday dd/mm	
Sunday dd/mm	

Scope:
All libraries with a reference service.

Interpretation and factors affecting the indicator:
The interpretation of the results depends on the assignment and objective of the library. If the library is striving to attract many information requests, then a low figure can indicate that the service should be marketed better. The result is also influenced by the accessibility of the reference service, which depends on opening hours and staffing levels, for example.

Example:
The municipal library of Remote City has two information desks and a reference service via e-mail at its main library, as well as a combined information and circulation desk at each of its four branch libraries. During the year two measurements were performed of the number of information requests submitted. During the first week a total of 130 information requests

were submitted and during the second week 170 requests. On average, around 150 requests were submitted to the library each week. During that year the library was open 45 weeks. By extrapolation one can calculate that 6,750 information requests were made during the year. Remote City has a population of 60,000.

6,750/60,000=0.11

8. Programme/activity attendances per member of the target population (Compare: EQUINOX and EAL P3.3)

Objective:
To measure the extent to which the library reaches its target population with its events, e.g. programmed activities, exhibitions, book talks and user education (courses on how to use the library's information resources).

Definition:
The number of participants in the library's events is divided by the total number of people in the target population.

Method:
One ascertains the number of people who have participated in the library's events by collecting statistics on the number of people who participate in or attend the different events. This figure is divided by the number of people in the target population.

A: The number of participants in the library's events during a year
B: The total number of people in the target population

A/B

Scope:
All libraries which provide user education and arrange programmed activities or exhibitions.

Interpretation and factors affecting the indicator:
By "events" we mean programmed activities (e.g. author visits), book talks, exhibitions etc. arranged by the library, or organised and pre-planned courses on how to use the library and its information sources. User education that takes the form of unplanned and informal guidance of one or several individual users in the library is not to be counted. Nor is the measurement to include Web-based user education.

The result will be a real figure without any upper limit. A higher figure indicates a better penetration of the target population. This method of calculation may mean that the same person may be counted several times, since any single person may participate in the events several times. The indicator shows how successful the library has been in reaching its target population and not the real number of individuals who have participated in the library's events.

The measurement is quantitative and does not say anything about the effect or the quality of the user education, programmed activities or exhibitions.

Example:
Edification City University has 1,000 undergraduates and a staff of 200. During 2001 the University Library held courses in information retrieval for all those interested on ten occasions. A total of 600 people participated in the courses.

600/1 200=0.5

9. Median time for document acquisition – from order to delivery
(Compare:ISO 11620 B.3.1.1)
Median time for document processing – from arrival to shelving
(Compare: ISO 11620 B.3.2.1)

Objective:
To measure the length of time it takes to ***(a)*** purchase a book and ***(b)*** to process the book, from the registration of its arrival to its shelving.

Definition:
The median time (in days) is calculated, partly for the period between the ordering of the book and its arrival and partly for the period between its arrival and its shelving.

Method:
Process measurement: For all monograph acquisitions during a certain period of time, the ordering and the arrival dates are registered. When the book arrives, a form (see below) is placed in the book. The form contains a number of stations, of which *Ordering*, *Arrival* and *Shelving* are compulsory. Otherwise the form is adapted to the needs of the library in question. The form accompanies the order/book from the beginning to the end, and one fills in the start time and finishing time for each station. It is recommended that the form should be concealed in the book as far as is possible, since it is important to avoid possible sources of error, one of which might be that a book with a form sticking out of it may be processed faster than one without a form.

Ordering
Date for sending order:
Arrival
Date for the book's arrival at the library:
Shelving
Date for shelving the book or making it available:

For each monograph, count the number of days it takes from ordering the monograph to its arrival at the library, and from its arrival to its shelving. Rank the number of days from "highest" to "lowest". The median time is the figure in the middle of the ranking list. If there is an even number of documents in the ranking list, take the average of the two middle figures. Round off to the nearest whole number. For example, the median of the values 2, 6, 8, 10 and 32 is 8, while that of 2, 6, 8 and 10 is 7.

The result is expressed as a number of days (including weekends) in two steps: the number of days between *ordering* and *arrival*, and the number of days between *arrival* and *shelving*.

Scope:
All libraries which purchase monographs.

Interpretation and factors affecting the indicator:
Monographs which have been obtained through a donation or an exchange are not to be included. The same applies to monographs which are ordered before their publication date. This measure can show weaknesses in both the supplier's service and the library's routines.

The indicator constitutes an amalgamation of two ISO-indicators. The purpose of the amalgamation is to measure a whole process using the same form.

The measurement should comprise 50-100 orders, half of which should be domestic material and half foreign. If the library wishes to carry out a more detailed investigation of how long the internal processes take, it may add more fixed points to the form according to its needs, e.g.

Date for the book’s arrival at the Media Care Department:
Date for the book’s arrival at the Cataloguing Department:

10. Proportion of interlibrary loans to total loans
(Compare: DM H22)

Objective:
To measure the relationship between the library's loans from its own collections and incoming interlibrary loans of original documents from other libraries.

Definition:
The library's acquisition policy is assessed by investigating the relationship between the library's loans from its own collections and interlibrary loans of original documents from other libraries.

Method:
The library's statistics are used to find out the number of original documents that were borrowed by the library's users through interlibrary lending during the year. One only counts those documents which have been delivered and does not include those which could not be delivered. Data on the number of loans from the library's own collections are obtained from its local computer system or from its own statistics. Divide the number of interlibrary loans of original documents from other libraries by the number of loans from the local collections. Do not include the number of renewals, only the original loans. The result is converted to a percentage.

A: The number of interlibrary loans of original documents from other libraries during a year
B: The number of loans from the local collections during a year

A/B*100

Scope:
All libraries with interlibrary loans.

Interpretation and factors affecting the indicator:
The indicator shows weaknesses in the library's acquisitions in relation to the users' needs. The result will be a figure between 0 and 100. A low figure indicates that the library's collections are well suited to the needs of its users.

Example:
A small library has 100 interlibrary loans from other libraries and 10,000 loans from its own collections during a year. During the same period a large library has 400 interlibrary loans from other libraries and 20,000 loans from its own collections. The results are 1% and 2% respectively, which indicates that the collections of the small library are better suited to user needs.

11. Collection turnover
(Compare: ISO 11620 B.2.4.1)

Objective:
To assess the overall rate of use of a loan collection.

Definition:
The total number of loans during one year is divided by the number of documents in the library's own lending collections.

Method:
Count the number of registered loans (including renewals) of books from the library's lending collections. Data on the number of loans are obtained from its local computer system or from the library's own statistics. Count the number of documents in those parts of the library's collections which are available for lending. If it not possible to obtain the exact number of documents, one can make an estimate by measuring the number of shelf metres in the library's lending collections and multiplying the number by 40.

A: The number of registered loans from the lending collections
B: The number of documents included in the lending collections

A/B

Round off the figure to one decimal place.

Scope:
All libraries with collections which are available for lending.

Interpretation and factors affecting the indicator:
The higher the figure obtained, the more the collections are used. The indicator is influenced by several factors, e.g. the composition of the collections, the extent to which the collections are used within the library, how long the lending period is for the books, and how easy it is to make renewals.

Example:
Organisation Ltd has a company library called "Info Centre". Each year the library extracts statistics from its circulation system. Last year's measurement showed that 2,000 loans and renewals had been carried out. The Info Centre has 128 shelves of books. Three of the shelves contain reference books. Therefore, the collections consist of 125*40 books, i.e. 5,000 books. 2,000/5,000=0.4.

12. Misshelving
(Compare: DM F93)

Objective:
To measure the availability of the collections.

Definition:
This indicator is a measure of the order of the books on the shelves that are available to the library's users.

Method:
Certain randomly selected parts of the collections are checked. The selection should correspond to 5-10% of the total number of shelving sections. One first counts the number of books currently standing on a specific shelf and then the number of books that are misshelved on that occasion. However, one does not count the number of books missing from the shelf on that same occasion. For example, the series of volumes "1,2,3,4,6" is correctly shelved, while the series "1,2,3,4,6,5" is shelved in the wrong order. The result is counted as a percentage:

A: The number of misshelved books
B: The total number of books checked

A/B*100

Scope:
All libraries with collections on open shelves.

Interpretation and factors affecting the indicator:
The result will be a figure between 0 and 100. A low figure indicates good availability.

The indicator only shows the number of books placed wrongly, not the number of books missing from the shelves. Another weakness is that the measurement only provides a pointer as to how large a proportion of the books is not correctly placed. It does not reveal whether the shelving error is very large or very small. For users there is a big difference between these two alternatives, since as a rule one can find a book that is on the right shelf at least, even if it is not correctly placed on that shelf.

The greater the number of shelves that are checked, the more reliable are the results. Small libraries can count all their shelves, while this may be impossible in a larger library. In libraries with large collections on open shelves, one makes a random selection of shelves, e.g. every tenth shelf, and counts the number of misshelved books on these.

Example:
Artville University Library is checking the order of the books on its shelves. In the library there are 100 shelving sections with books. Every tenth shelf is selected for the measurement. The first shelving section contains 300 books, ten of which are wrongly placed. In the shelving section there are 200 books, but only two are in an incorrect position. When all the

ten sections have been checked, a total of 2,500 books have been found, 100 of which were placed incorrectly.

100/2500 *100= 4
4% of the books were misshelved.

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