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BSI Standards Publication

Information and documentation — Library performance indicators

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National foreword

This British Standard is the UK implementation of ISO 11620:2014. It supersedes BS ISO 11620:2008 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee IDT/2/15, Library and publishing statistics.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Information and documentation — Library performance indicators

Information et documentation — Indicateurs de performance des bibliothèques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 46, *Information and documentation*, Subcommittee SC 8, *Quality — Statistics and performance evaluation*.

This third edition cancels and replaces the second edition (ISO 11620:2008), which has been technically revised.

Introduction

This International Standard is concerned with the evaluation of libraries of all types.

The main purpose of this International Standard is to endorse the use of performance indicators regarding the quality of library services in libraries and to spread knowledge about how to conduct performance measurement.

This International Standard specifies the requirements of a performance indicator for libraries and establishes a set of indicators to be used by libraries of all types. It also provides guidance on how to implement performance indicators in libraries where such indicators are not already in use.

The quality of library services is related to the broader topic of quality management and quality assurance. This International Standard acknowledges and supports the International Standards prepared by ISO/TC 176.

This International Standard provides a standardized terminology and concise definitions of the performance indicators. Furthermore, this International Standard contains concise descriptions of the indicators and of the collection and the analysis of data needed. Detailed information concerning methodology and analysis is provided in the publications listed in the Bibliography.

Every indicator in this International Standard is given a unique name. This name sometimes differs from the literature upon which its description is based. Such differences are documented in the descriptions of the indicators.

The performance indicators included in this International Standard are either in widespread use, well documented in the literature, or sufficiently field-tested and validated through national efforts. Some of the descriptions of indicators incorporate modifications of indicators described elsewhere; these reflect the practical experience or the need to generalize. Input and resource-based ratios are very well documented in the literature and provide a context for library performance indicators as defined in this International Standard.

There are some library activities and services for which, during the development of this International Standard, there was a general lack of tested and well-documented indicators. In addition, electronic services will continue to develop and evolve, and such evolution will require monitoring as related to the indicators in this International Standard. The library and information community is encouraged to establish mechanisms and to give high priority to developing relevant indicators for existing and emerging library services and resources.

This International Standard will be maintained by a working group that will monitor developments and incorporate additional indicators as they are tested and validated.

Information and documentation — Library performance indicators

1 Scope

This International Standard is applicable to all types of libraries in all countries. However, not all performance indicators apply to all libraries. Limitations on the applicability of individual performance indicators are listed in the scope clause of the description of each indicator (see Annex B).

Performance indicators can be used for comparison over time within the same library. Comparisons between libraries can also be made, but only with caution. Comparisons between libraries will need to take into account any differences in the constituencies of the libraries and library attributes, with a good understanding of the indicators used, limitations to comparisons, and careful interpretation of the data.

There are other limitations to the performance indicators in this International Standard that depend on local factors, such as the community the library serves, service mandates, and technology infrastructure configuration. Results from the use of performance indicators in this International Standard are intended to be interpreted with regard to these factors.

Performance indicators are not specified for all services, activities, and uses of the resources of the library, either because such indicators have not been proposed and tested at the time of formulation of this International Standard, or because they did not fulfil the criteria specified (see 4.2).

The performance indicators included in this International Standard do not reflect all possible measures or evaluation techniques. This International Standard offers accepted, tested, and publicly accessible (i.e. non-proprietary) methodologies and approaches to measuring a range of library service performance.

This International Standard is not intended to exclude the use of performance indicators not specified in it.

This International Standard does not include indicators for assessing the impact of library services either on individuals, the communities that libraries serve, or on society at this time. Library impact assessment will be dealt with by a specific International Standard (ISO 16439).

Throughout the text, the names of indicators are printed with initial capitals for significant words, e.g. Library Visits per Capita. This helps to distinguish the names from supporting text.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
access
successful request of a library-provided online service

Note 1 to entry: An access is one cycle of user activities that typically starts when a user connects to a library-provided online service and ends by a terminating activity that is either explicit (by leaving the database through log-out or exit) or implicit (timeout due to user inactivity).

Note 2 to entry: Accesses to the library website are counted as virtual visits.

Note 3 to entry: Requests of a general entrance or gateway page should be excluded.

Note 4 to entry: If possible, requests by search engines should be excluded.

[SOURCE: ISO 2789:2013, 2.2.1]

2.2
accessibility
ease of reaching and using a service or facility

2.3
active borrower
registered user who has borrowed at least one item during the reporting period

Note 1 to entry: This count underrates the number of active users, but is still for many libraries the only manageable measure.

[SOURCE: ISO 2789:2013, 2.2.2]

2.4
active user
registered user who has visited or made use of library facilities or services during the reporting period

Note 1 to entry: This includes active borrowers.

Note 2 to entry: This can include the use of electronic library services, if it is possible, to identify electronic use and virtual visits of the individual user, or if data can be obtained by means of surveys.

Note 3 to entry: If a library identifies non-registered active users, e.g. by surveys, these should be counted separately.

[SOURCE: ISO 2789:2013, 2.2.3]

2.5
appropriateness
suitability of any given indicator for evaluating a specific activity

2.6
availability
degree to which content, documents, facilities, or services are actually provided by the library at the time required by users

2.7
content unit
computer-processed uniquely identifiable textual or audio-visual piece of published work that can be original or a digest of other published work

Note 1 to entry: This includes documents or parts of documents (e.g. articles, abstracts, content tables, images) and descriptive records.

Note 2 to entry: Adapted from COUNTER code of practice, Release 3:2008.

Note 3 to entry: PDF, Postscript, HTML, and other formats of the same content unit will be counted as separate items.

[SOURCE: ISO 2789:2013, 2.3.9]

2.8
database
collection of electronically stored descriptive records or content units (including facts, texts, pictures, and sound) with a common user interface and software for the retrieval and manipulation of the data

Note 1 to entry: The units or records are usually collected with a particular intent and are related to a defined topic. A database can be issued on CD-ROM, diskette, or other direct-access method, or as a computer file accessed via dial-up methods or via the Internet.

Note 2 to entry: Licensed databases are counted separately even if access to several licensed database products is effected through the same interface.

Note 3 to entry: A common interface providing access to a packet of serials or digital documents, usually offered by a publisher or vendor, is also to be counted as database. Additionally, the single serials or digital documents should be counted as serials or digital documents.

[SOURCE: ISO 2789:2013, 2.3.10]

2.9
descriptive record
computer-processed bibliographic or other individual record in a standard format that references and/or describes a document in any physical form or a content unit

Note 1 to entry: A collection of descriptive records is usually published in the form of a database.

Note 2 to entry: The record can include elements such as title, author, subject, abstract, date of origin, etc.

[SOURCE: ISO 2789:2013, 2.3.12]

2.10
digital document
information unit with a defined content, born digital, or digitized, that has been created or digitized by the library or acquired in digital form as part of the library collection

Note 1 to entry: This includes eBooks, electronic patents, networked audiovisual documents, and other digital documents, e.g. reports, cartographic and music documents, preprints, etc. Databases and electronic serials are excluded.

Note 2 to entry: Items incorporated in databases are covered by 3.8.

Note 3 to entry: A digital document can be structured into one or more files.

Note 4 to entry: A digital document consists of one or more content units. Before digitization, the library has to decide which content units should be searchable afterwards, e.g. articles in serials or songs on records.

[SOURCE: ISO 2789:2013, 2.3.13]

2.11
digitization
process of converting analogue materials into digital form

Note 1 to entry: Digitization for document supply from the library collection to a user or institution is excluded.

Note 2 to entry: Digitization for preservation purposes is included.

Note 3 to entry: Mass digitization is included.

Note 4 to entry: Purchase of electronic copies for replacing print copies is excluded.

[SOURCE: ISO 2789:2013, 2.3.15]

2.12
document
recorded information or material object, which can be treated as a unit in a documentation process

Note 1 to entry: Documents can differ in form and characteristics.

[SOURCE: ISO 5127:2001, 1.2.02]

2.13
download
successful request of a content unit from a library-provided online service or other Internet service

[SOURCE: ISO 2789:2013, 2.2.6]

2.14
eBook
electronic book
non-serial digital document, licensed or not, where searchable text is prevalent, and which can be seen in analogy to a print book (monograph)

Note 1 to entry: The use of eBooks is, in many cases, dependent on a dedicated device and/or a special reader or viewing software.

Note 2 to entry: eBooks can be lent to users either on portable devices (eBook readers) or by transmitting the contents to the user's PC or other device for a limited time period.

Note 3 to entry: Doctoral dissertations in electronic format are included.

Note 4 to entry: Documents digitized by the library are included.

[SOURCE: ISO 2789:2013, 2.3.20]

2.15
effectiveness
measure of the degree to which given objectives are achieved

Note 1 to entry: An activity is effective if it maximizes the results it was established to produce.

2.16
efficiency
measure of the utilization of resources to realize a given objective

Note 1 to entry: An activity is efficient if it minimizes the use of resources, or produces better performance with the same resources.

2.17
electronic document delivery, mediated
electronic transmission of a document or part of a document from the library collection to a user, mediated by library staff, not necessarily via another library

Note 1 to entry: Electronic transmission of documents to members of the population to be served is included. Fax transmission is excluded.

Note 2 to entry: Can be split up as to transmission with or without charge to the user.

Note 3 to entry: Unmediated downloading by users from the electronic collection of the library is excluded.

[SOURCE: ISO 2789:2013, 2.2.7]

2.18
electronic service
library service delivered via electronic means, whether from local servers or provided via networks

Note 1 to entry: Electronic library services include the online catalogue, library website, electronic collection, electronic lending, electronic document delivery (mediated), electronic reference service, user training by electronic means, services for mobile devices, services for interactive use (including services on social networks), and Internet access offered via the library.

Note 2 to entry: This does not include booking physical services (e.g. rooms or library tours) by electronic means.

[SOURCE: ISO 2789:2013, 2.2.8]

2.19
evaluation
process of estimating the effectiveness, efficiency, utility, and relevance of a service or facility

2.20
external user
user of a library who does not belong to that library's population to be served

[SOURCE: ISO 2789:2013, 2.2.12]

2.21
facilities
equipment, study places, etc. provided for library users

Note 1 to entry: Includes photocopiers, online terminals, CD-ROM workstations, seats for reading, and study carrels, but excludes toilets, cafes, and public telephones.

2.22
free Internet resource
internet resource with unrestricted (open) access for which no payment is required

[SOURCE: ISO 2789:2013, 2.3.23]

2.23
full-time equivalent
FTE
measurement equal to one staff person working a full-time work schedule for one year

Note 1 to entry: For example, if out of three persons employed as librarians, one works quarter-time, one works half-time, and one works full-time, then the FTE of these three persons would be 0,25 + 0,5 + 1,0 = 1,75 librarians (FTE).

Note 2 to entry: Not all libraries can use the same number of hours per year to determine an FTE. Thus, any comparative measures between libraries might need to consider any differences in hours.

2.24
goal
desired state of affairs to be achieved by the implementation of agreed policies

2.25
indicator
expression (which can be numeric, symbolic, or verbal) used to characterize activities (events, objects, persons) both in quantitative and qualitative terms in order to assess the value of the activities characterized, and the associated method

2.26
in-house use
documents taken by a user from open access stock for use on the premises

Note 1 to entry: In-house use includes browsing at the shelves in the sense of a short investigation of the contents, but excludes looking at the side or spine titles only for selecting material.

[SOURCE: ISO 2789:2013, 2.2.14]

2.27
institutional repository
open access repository for storing the publications of an institution, or a group of institutions, such as e-prints, technical reports, theses and dissertations, datasets, and teaching and learning materials

[SOURCE: ISO 2789:2013, 2.3.26]

2.28
interlibrary loan
loan of a document in its physical form or delivery of a document, or part of it, in copied form, from one library to another which is not under the same administration

Note 1 to entry: Mediated transmission of documents in electronic form is counted as electronic document delivery.

[SOURCE: ISO 2789:2013, 2.2.16]

2.29
library
organization, or part of an organization, which aims to build and maintain a collection and to facilitate the use of such information resources and facilities as required to meet the informational, research, educational, cultural, or recreational needs of its users

Note 1 to entry: The supply of the required information resources can be accomplished by building and maintaining a collection and/or by organizing access to information resources.

Note 2 to entry: These are the basic requirements for a library and do not exclude any additional resources and services incidental to its main purpose.

[SOURCE: ISO 2789:2013, 2.1.6]

2.30
library website
unique domain on the Internet consisting of a collection of web pages that is published by a library to provide access to the library's services and resources

Note 1 to entry: The pages of a website are usually interconnected by the use of hypertext links.

Note 2 to entry: Excludes documents that fit the definitions of electronic collection and free Internet resources that can be linked from the library website.

Note 3 to entry: Excludes web services in the library's domain that are operated on behalf of other organizations.

[SOURCE: ISO 2789:2013, 2.2.18]

2.31
loan
direct lending or delivery transaction of an item in non-electronic form (e.g. book), of an electronic document on a physical carrier (e.g. CD-ROM) or other device (e.g. eBook reader), or transmission of an electronic document to one user for a limited time period (e.g. eBook)

Note 1 to entry: Renewals are excluded, but could be counted separately.

Note 2 to entry: Loans include registered loans within the library (on-site loans).

Note 3 to entry: Loans include copied documents supplied in place of original documents (including fax) and printouts of electronic documents made by library staff for the user.

Note 4 to entry: Loans of documents in physical form to distance users are included.

Note 5 to entry: Mediated electronic transmission of documents is counted as electronic document delivery if their use is permitted for unlimited time. This includes transmissions to members of the population to be served.

[SOURCE: ISO 2789:2013, 2.2.19]

2.32
metadata
structured data about data

Note 1 to entry: The data are associated with either an information system or an information object for purposes of description, administration, legal requirements, technical functionality, use and usage, and preservation.

Note 2 to entry: Adapted from Dublin Core Metadata Initiative, 2005.

2.33
mission
statement approved by the authorities formulating the organization's goals and its choices in services and products development

2.34
objective
specific target for an activity to be attained as a contribution to achieving the goal of an organization

2.35
opening hours
hours in a normal week when the main physical services of the library (e.g. reference and loan services, reading rooms) are available to users

[SOURCE: ISO 2789:2013, 2.4.7]

2.36
operating expenditure
ordinary expenditure
expenditure incurred in the running of a library

Note 1 to entry: Money spent on staff and on resources that are used and replaced regularly. This includes expenditure on employees, rent, acquisitions and licensing, binding, computer network (operations and maintenance), telecommunication, building, maintenance, utilities (electricity, water, sewage, heating, etc.), repair or replacement of existing furnishings and equipment, and events, etc. This can also be termed "current" or "recurrent" expenditure. When applicable, local and national sales/purchase taxes [e.g. Value Added Tax (VAT)] are included.

[SOURCE: ISO 2789:2013, 2.6.3]

2.37
partnership
ongoing, formalized cooperation between a library and one or more other organizations, including other libraries, usually concerning particular services or activities

Note 1 to entry: A partnership will usually have a contractual basis. Partners can make different contributions, e.g. expertise, funding, training, materials in kind, premises, etc.

Note 2 to entry: Cooperation between two or more libraries within a single administrative unit is excluded.

Note 3 to entry: Time-limited cooperation on a specified project is excluded and counted as a cooperative project (see 2.5.2).

Note 4 to entry: A one-way relationship, whether paid or unpaid, where one partner is only supplying, the other only receiving services, is excluded.

[SOURCE: ISO 2789:2013, 2.5.5]

2.38
performance
effectiveness of the provision of services by the library and the efficiency of the allocation and use of resources in providing services

2.39
performance indicator
numerical, symbolic, or verbal expression derived from library statistics and data used to characterize the performance of a library

2.40
population to be served
number of individuals for whom the library is set up to provide its services and materials

Note 1 to entry: For public libraries, this will normally be the population of the legal service area (authority). For libraries of an institution of higher education, this will normally be the total of academic and professional staff plus students.

2.41
project
unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost, and resources

Note 1 to entry: An individual project can form part of a larger project structure.

Note 2 to entry: Adapted from ISO 9000:2005.

[SOURCE: ISO 2789:2013, 2.5.6]

2.42
quality
degree to which a set of inherent characteristics fulfils requirements

Note 1 to entry: The term "quality" can be used with adjectives such as poor, good, or excellent.

Note 2 to entry: "Inherent", as opposed to "assigned", means existing in something, especially as a permanent characteristic.

[SOURCE: ISO 9000, 3.1.1]

2.43
reference question
information contact that involves the knowledge or use of one or more information sources (such as printed and non-printed materials, machine-readable databases, the library's own and other institutions' catalogues) by library staff

Note 1 to entry: Adapted from ANSI/NISO Z39.7–2004.

Note 2 to entry: Can also involve recommendations, interpretation, or instruction in the use of such sources.

Note 3 to entry: One reference question can address several issues.

Note 4 to entry: The question can be delivered personally or by means of telephone, regular mail, fax, or electronic media (via email, the library website, or other networked communications mechanisms).

Note 5 to entry: It is essential that libraries do not include informational (directional and administrative) questions, e.g. for locating staff or facilities, regarding opening times, or about handling equipment, such as printers or computer terminals.

[SOURCE: ISO 2789:2013, 2.2.26]

2.44
registered user
person or organization registered with a library in order to use its collection and/or services within or away from the library

Note 1 to entry: Users can be registered upon their request or automatically when enrolling in the institution.

Note 2 to entry: The registration should be monitored at regular intervals, minimum of every three years, so that inactive users can be removed from the register.

[SOURCE: ISO 2789:2013, 2.2.28]

2.45
rejected access
turnaway
unsuccessful request of a licensed online service provided by the library by exceeding the simultaneous user limit

Note 1 to entry: Request failure because of wrong passwords is excluded.

[SOURCE: ISO 2789:2013, 2.2.29]

2.46
reliability
degree to which a measure repeatedly and consistently produces the same result

2.47
special grant
grant of a non-recurrent nature to fund (or partly fund) projects

[SOURCE: ISO 2789:2013, 2.6.4]

2.48
staff training
formal pre-planned training which can be held in-house or externally, and delivered by library staff or external experts

Note 1 to entry: Informal training, e.g. point-of-use training, is excluded.

[SOURCE: ISO 2789:2013, 2.7.6]

2.49
target population
groups of actual and potential users appropriate to an individual library as the object of a specific service or as the primary users of specific materials

2.50
title
words at the head of a document thus identifying it and normally distinguishing it from others

Note 1 to entry: For measuring purposes, "title" describes a document, which forms a separate item with a distinctive title, whether issued in one or several physical units, and disregarding the number of copies of the document held by the library.

[SOURCE: ISO 5127:2001, 4.2.1.4.01]

2.51
user
recipient of library services

Note 1 to entry: The recipient can be a person or an institution, including libraries.

Note 2 to entry: Library services include electronic services, physical services, and visiting the library premises.

2.52
user place
place provided for users for reading or studying, whether with or without seating or equipment

Note 1 to entry: Includes places in carrels, in seminar and study rooms, and in the audio-visual and children's departments of the library, and informal seating in lounges, group areas, etc.

Note 2 to entry: Excludes places in halls and lecture auditory theatres intended for audiences of special events. Also excludes floor space and cushions on which users can sit.

[SOURCE: ISO 2789:2013, 2.4.11]

2.53
user service area
part of the library that is accessible to users

Note 1 to entry: This includes space for reading, studying, information delivery, and any other services delivered to users, as well as open-access storage areas as integrated parts of user service areas, media centres, workplaces for staff in these areas, and exhibition areas.

[SOURCE: ISO/TR 11219:2012, 2.100]

2.54
user training
training programme set up with a specified lesson plan, which aims at specific learning outcomes for the use of library and other information services

Note 1 to entry: User training can be offered as a tour of the library, as library tuition, or as a web-based service for users.

Note 2 to entry: The duration of lessons is irrelevant.

[SOURCE: ISO 2789:2013, 2.2.37]

2.55
validity
degree to which an indicator actually measures what it is intended to measure

2.56
virtual visit
one continuous cycle of user activities on the library website by users from outside the library's IP address space (usually from outside the library premises), regardless of the number of pages or elements viewed

Note 1 to entry: A virtual visit typically starts when a user accesses the library website after visiting an external page, and ends if no activity has been recorded for a defined period of time (recommended maximum is 30 min). Another access after a longer interval initiates a new visit.

Note 2 to entry: A virtual visitor should at least be identified by a unique cookie and/or by a unique combination of the user's IP address and browser string (user agent). Known web spiders and harvesters should be excluded.

[SOURCE: ISO 2789:2013, 2.2.39, modified].

2.57
visit
person (individual) entering the library premises

[SOURCE: ISO 2789:2013, 2.2.40]

3 Criteria and descriptive framework

3.1 General

3.1.1 The purpose of library performance indicators is 1) to function as tools to assess the quality and effectiveness of services, resources, and other activities provided by a library and 2) to assess the efficiency of resources allocated by the library to such services and other activities.

3.1.2 Annex B of this International Standard presents a set of performance indicators that have been thoroughly tested by widespread use in libraries or through explicit testing by researchers and subsequent documentation in the literature. Some descriptions of indicators include modifications that reflect practical experience, or the need to generalize the indicators for general application.

3.1.3 All performance indicators included in Annex B fulfil the criteria presented in 3.2 and are specified according to the descriptive framework presented in 3.3. Performance indicators to be added in revisions of this International Standard will have to fulfil the same criteria and follow the same descriptive framework.

3.1.4 New or alternative performance indicators can be developed in order to cover other activities and services or to serve a specific purpose. It is recommended that such performance indicators be evaluated and described according to 3.2 and 3.3 (see also Clause 4).

NOTE Care has been taken to describe the indicators individually and independently of other indicators. This does not imply that the indicators should be used in isolation. When collecting data, it will, in many cases, be possible and practical to collect data for two or more indicators at the same time.

3.1.5 While traditional library statistics are collected over the complete reporting period, this cannot be possible for all library services, e.g. in-house use or reference questions. Therefore, this International Standard allows for the application of sampling methods, where data cannot be collected from automated systems, or where data collection over a reporting period would be too time consuming. For the calculation of a reliable sample size, handbooks of statistical procedures should be consulted.

3.2 Criteria

3.2.1 In order to comply with this International Standard, a library performance indicator has to be thoroughly tested, validated, and (preferably) documented in the literature. Performance indicators that are in widespread use in libraries can be accepted although they have not been explicitly documented.

3.2.2 The following criteria should be used to test a performance indicator.

a) Informative content — The indicator should be informative as a tool for measuring an activity, for identifying achievements, and for identifying problems and shortcomings in the performance of the library so that action can be taken to remedy these. It should provide information for decision-making, e.g. goal setting, budget allocation, prioritizing services and activities, etc.

b) Reliability — A performance indicator shall be reliable in the sense that it consistently produces the same result when used repeatedly under the same circumstances.

   NOTE The fact that an indicator reflects the underlying variability of the data, such as seasonal variations or fluctuations in loan activities, does not in itself mean that the indicator is not reliable.

c) Validity — The indicator shall be valid in that it shall measure what it is intended to measure.

   NOTE That some indicators are indirect indicators or rough estimates do not in itself mean that they are not valid.

d) Appropriateness — The indicator shall be appropriate for its intended purpose. That is, the units and scale shall be suitable, and the operations necessary to implement the process of measurement should be compatible with the library's procedures, physical layout, electronic services, etc.

e) Practicality — The indicator has to be practical in the sense that it uses data that the library can produce with a reasonable amount of effort in terms of staff time, staff qualifications, operational costs, and users' time and patience.

If the indicator is intended for comparisons between libraries, a sixth criterion [item f)] applies.

f) Comparability — A library performance indicator allows comparisons between libraries if the same score, making allowance for the accuracy of the score, means the same level of quality of services or the same level of efficiency in the libraries to be compared (see also 4.3.5).

   NOTE 1 It is imperative that similar libraries (e.g. mission, library type, target population) are used for comparative purposes.

NOTE 2 It is vital to ensure that the activities being measured are comparable.

NOTE 3 This criterion is sufficient for ranking libraries according to the score of the performance indicator, but is not sufficient to determine, for example, that a library with twice the score of another is twice as good.

3.3 Descriptive framework

3.3.1 General

The performance indicators included in Annex B are described according to the following framework, which should also be used in developing descriptions of new or alternative performance indicators.

3.3.2 Balanced Scorecard approach

The presentation of the performance indicators in this International Standard follows the Balanced Scorecard approach.[20] This approach creates an indicator framework with four major areas of measurement, as follows.

1) **Resources, Access, and Infrastructure**: This perspective presents indicators that measure the adequacy and availability of library resources and services (e.g. staff, collections, user places).

2) **Use**: This perspective presents indicators that measure the usage of library resources and services (e.g. loans, downloads, and facilities use).

3) **Efficiency**: This perspective presents indicators that measure resource and service efficiency (e.g. costs per loan, time required to acquire or process documents, and employee productivity in media processing).

4) **Potentials and Development:** This perspective provides indicators that measure the library's input into emerging service and resource areas and its ability to gain sufficient funding for development (e.g. percentage of library staff providing electronic services and attendances at formal training lessons by staff).

This organization provides users of this International Standard with the ability to identify major areas for performance measurement by content and type of indicator.

The indicators are further categorized along the five service/resource areas of collection, access, facilities, staff, and general.

3.3.3 Indicator presentation

3.3.3.1 General

Each indicator is presented in the standard format described below.

3.3.3.2 Name

Each indicator shall have a unique, descriptive name.

3.3.3.3 Objective

Each indicator shall have an explicit objective, stated in terms of the service(s), activity(ies), or use(s) of resources to be evaluated.

3.3.3.4 Scope

The scope shall state the types of libraries to which the indicator can be applied.

The scope can state whether the indicator is suitable for comparison between libraries and whether there are any limitations concerning comparability.

The scope can include other limitations in the application of the indicator.

NOTE The scope statement can include qualifications, instances, and situations to show how the indicator can be applied. For example, the scope can state whether the indicator is only suitable for certain parts of the collection such as the loan collection or the reference collection; whether the indicator can be used both for the library service or activity as a whole, and for parts of the library service; for showing differences between subjects or parts of the population served; or for certain types of libraries (e.g. national, academic, public).

3.3.3.5 Definition of the indicator

Each indicator shall be defined uniquely in terms of the data to be collected and/or the relationship to be established between the data.

This statement should also include definitions of special terms used in the definition of the indicator, that are not defined elsewhere in this International Standard, as well as terms used in the description of the method(s) to be used.

Unambiguous terms used in the customary sense need not be defined.

3.3.3.6 Method

The data to be collected and the calculations to be performed shall be described concisely.

If a measure needs to be repeated to determine the value of the indicator, this shall be stated clearly.

Two or more equivalent methods can be described, i.e. different data and calculations used to produce the same indicator.

NOTE Examples of this use total count versus sampling, and use a direct measure versus an estimate based on different data.

If more than one method is described, the one most generally applicable shall be described first. The descriptions supplied shall not include general statistical methodology such as sampling procedures, sampling sizes, estimates of confidence intervals, statistical tests, etc.

If a questionnaire is to be used, only the question(s) to be asked and the score used are included, and not a detailed description of the total questionnaire design.

If possible, the descriptions of methods shall indicate the effort necessary for preparation, data collection, and analysis of results.

3.3.3.7 Interpretation and factors affecting the indicator

The interpretation statement can include information necessary to interpret the results of using the indicator.

NOTE The total range of the indicator can be given, as well as a statement telling the user of this International Standard if a maximum, a minimum, or an optimal value represents the state that is valued the most.

The interpretation statement can include information about the variability to be expected, such as seasonal variations or variations in time of day.

This statement can also include information about factors internal or external to the library that will affect the results, in order to help using the performance indicator as a diagnostic tool. This information should be provided in such a way that it is possible to see what actions taken by a library can contribute to a desired change in the score.

3.3.3.8 Source(s)

References are supplied to document the source of the indicator. The description should state clearly whether the indicator as described in this International Standard is a modified version of the indicator described in the source document.

If the name of the indicator is different from the one used in the source, the original name is supplied in parentheses after the reference.

The references can include documents supplying more detailed information about the use of the indicator, methods of data collection and analysis, etc.

3.3.3.9 Related indicator(s) (optional)

Where appropriate, a statement is included of the relationship of the indicator to other indicators within this International Standard.

4 Uses of performance indicators

4.1 General

4.1.1 The performance indicators described in this International Standard can be used effectively in the evaluation of libraries. In this process, the quality and effectiveness of the services and other activities of the library, as well as the efficiency of the usage of the library's resources, are evaluated against the mission, goals, and objectives of the library itself.

4.1.2 Performance indicators should be linked to systematic library planning and evaluation. Furthermore, measurement and evaluation processes should occur regularly. The results should be reported in a way that informs the decision-making processes and demonstrates how the library fulfils its mission.

4.1.3 As a library planning and evaluation tool, performance indicators have two principal objectives: 1) to facilitate control in the management process and 2) to serve as a basis for reference and for dialogues between library staff, funding bodies, the user community, and other relevant external stakeholder constituencies.

A secondary objective is to serve in comparative analysis of the performance of libraries and information services which have equivalent missions or objectives.

4.1.4 Libraries have been using a wide variety of performance indicators to ascertain the quality of library services. Several indicators are being used extensively and thus represent an established practice. Recent years have also seen attempts to consolidate previous research efforts in this field, and both have contributed to attain consensus among practitioners on a set of performance indicators and how to implement them in the day-to-day life of the library.

4.1.5 There are, and will continue to be, emerging areas of evaluation for libraries. It is important to continue to review, analyse, and consider these new evaluation approaches for indicators that can be appropriate to include in future revisions of this International Standard.

4.2 Selection of performance indicators

4.2.1 The performance indicators included in this International Standard are those seen to be most useful for libraries in general. This International Standard recognizes that there are many different types of libraries, in different settings, serving different user groups, having a range of unique characteristics (structure, funding, governance, etc.), and affected by a number of situational factors that impact the services and resources that the libraries can provide. Since there is such a wide variation around the world, it is important to understand that not all established performance indicators are useful to all libraries. The list of performance indicators included in this International Standard is best seen as a menu of possible performance indicators for use in a range of library settings.

4.2.2 Libraries, in consultation with their host institutions and relevant authorities, such as local and national government, as well as their users and other stakeholders, will need to decide which indicators are most appropriate to a particular situation. This decision shall be made in the light of the mission, goals, and objectives of the library, as well as desired data regarding library performance. For example, the assessment of publicly funded libraries takes place in the context of the development of public policy.

It is desirable that all interested parties should be in agreement on the appropriateness of the performance indicators used.

4.2.3 In order to determine which performance indicators are most appropriate for a particular library, to collect and analyse the data, and to interpret findings into a management strategy, a range of staff skills will be necessary. Some libraries will find it important and necessary to engage in staff training and development of educational skills prior to implementing performance indicators.

4.2.4 In selecting performance indicators for use in a particular library setting, consider the following factors.

a) Will the performance indicator assist the management of the library, the funding body, and the population to be served?

b) Does the librarian have some knowledge that a particular activity or area might not be operating as well as it should? Even if this is only an intuitive feeling of the librarian, this could be a very good reason to use a performance indicator to find out whether there is a problem.

c) What level of effort can the library staff commit to the collection and analysis of the data to produce the performance indicators? To produce performance indicators requires staff time and resources. Adequate staff time and resources are necessary to produce a particular performance indicator. Staff will need to have practical knowledge of a range of statistical procedures.

d) Does any external authority require data to be reported on particular library service areas? If yes, it is necessary to decide whether the same data can also be used to produce library performance indicators.

Local factors important to the library can affect the selection of performance indicators. Librarians should make a conscious decision in selecting the performance indicators that will be of most use in assessing the operation of the library in relation to its goals and objectives.

4.3 Limitations

4.3.1 Optimizing scores on performance indicators

Users of library performance indicators should recognize that it is impossible to achieve optimum scores simultaneously on all performance indicators. For example, a library can achieve a high level of user satisfaction, but incur a high expenditure per user. The scores on performance indicators should be interpreted in the light of what the library intends to accomplish, and not simply in terms of optimizing scores on particular indicators.

4.3.2 Degree of accuracy

Care should be taken with the interpretation of results. Lack of precision can occur due to sampling errors, or to subjective aspects of the measuring process, or to inadequate time or resources for the measuring process (e.g. indicators B.1.2.3 and B.2.2.4). It can also imply that the indicators are inherently imprecise (e.g. B.2.2.1).

NOTE In some cases, a rough estimate is sufficient and to seek greater precision would be a waste of effort.

4.3.3 User skills versus library performance

To some extent, library performance indicators are affected by how well the user conducts various transactions with the library. For example, user satisfaction with the availability of materials can be extremely low at one library. This could indicate several things, one being that patrons lack adequate knowledge of how to locate materials in that particular library, or that the library has insufficient documents to meet demand. Thus, a low score suggests an area that requires review. The review can suggest a need for strategies to improve user knowledge and skills related to library activities, or it can suggest a need to improve the availability of books by changing loan periods or buying additional copies.

4.3.4 Linking resources to services

While poor performance can seem to indicate that additional resources can be required to improve library services, this is not necessarily true. In fact, there might not be a strong correlation between resources and the quality of library services provided. The range of staff skills, management approaches, and a variety of other factors, including increased resources, can have different effects on increasing the quality of services at different libraries.

4.3.5 Comparability of performance indicator data

A primary purpose of using library performance indicators is self-diagnosis. This can include comparisons of one year's performance with another, within the same library. A secondary purpose is to encourage meaningful and useful comparisons across different libraries. Standardizing performance indicators and the procedures for collecting those data assist in that process. However, such comparisons shall always be made with respect to the following factors for each library:

a) mission, goals, and objectives;

b) performance on a range of performance indicators;

c) resources;

d) user groups;

e) governance structure;

f) procedures.

If comparisons of performance indicator scores across different libraries are made, they should be done with considerable care and in full recognition of the limitations of such comparisons [see 43.2.2 f)].

Annex A
(normative)

List of performance indicators for libraries

Table A.1 lists activities and services commonly undertaken or provided in libraries through a Balanced Scorecard approach. The performance indicators described in this International Standard are grouped with the activities or services to which they relate, and reference is given to the descriptions provided in Annex B. The notation is designed to facilitate future additions both to the list of activities and to the list of indicators.

NOTE There are a number of indicators in use in libraries which are not described.

Table A.1 — List of performance indicators for activities and services commonly undertaken or provided in libraries

B.1 Resources, Access, and Infrastructure Indicators that measure the adequacy and availability of library resources and services (e.g. staff, collections, user places).		
Performance indicator	**PI number**	**Objective**
B.1.1 Collection		
Required Titles Availability	B.1.1.1	To assess to what extent titles owned or licensed by the library and in demand by the users are actually available when required.
Percentage of Required Titles in the Collection	B.1.1.2	To assess to what extent titles in demand by the users are owned or licensed by the library. The indicator is used to assess the fit of the collection to the requirements of the users.
Percentage of Rejected Accesses	B.1.1.3	To establish whether there are sufficient licences for each electronic database to meet users' demands.
Number of Documents Digitized per 1 000 Documents in the Collection	B.1.1.4	To assess to what extent the library fulfils its task of making the documentary heritage publicly available in digitized format.
Percentage of the Owner Institution's Publications in the Institutional Repository	B.1.1.5	To assess to what degree the academic publications of an institution are accessible through the institutional open access repository.
B.1.2 Access		
Shelving Accuracy	B.1.2.1	To assess to what extent documents that are recorded in the library's catalogue are in their correct place on the shelves and thereby available for use.
Median Time of Document Retrieval from Closed Stacks	B.1.2.2	To assess whether the retrieval processes are effective.
Speed of Interlibrary Lending	B.1.2.3	To assess the time interval for successfully completing an interlibrary loan or electronic document delivery transaction, from the initial request to sending the requested item(s).
Percentage of Successful Interlibrary Loans	B.1.2.4	To assess the fulfilment of interlibrary loans and electronic document delivery requests relative to the total number of interlibrary loans and electronic document delivery requests.

Table A.1 *(continued)*

Speed of Reference Transactions	B.1.2.5	To assess whether reference answers are provided in a timely manner. The indicator can also be used to analyse the effectiveness of processes in reference services.
Percentage of Rare Materials Accessible via Web Catalogues	B.1.2.6	To assess whether the rare collections are accessible via the web. The indicator also measures the library's engagement in promoting its rare collection.
Percentage of the Rare Collection in Stable Condition	B.1.2.7	To assess whether the rare collection is usable and accessible in its original form. The indicator thereby assesses the adequacy of the library's activity to preserve the originals.
Percentage of Rare Materials Needing Conservation/Restoration Treatment that Received Such Treatment	B.1.2.8	To assess the library's activities in the conservation of rare material in its original form.
B.1.3 Facilities		
User Area per Capita	B.1.3.1	To assess the importance of the library as a place for study, meeting, and as a learning centre, and indicate the institution's support for these tasks.
User Places per Capita	B.1.3.2	To assess the availability of user places in the library.
Hours Open Compared to Demand	B.1.3.3	To assess to what degree the opening hours of a library correspond to users' needs.
Percentage of Storage Space which has an Appropriate Environment	B.1.3.4	To assess whether the storage environment adequately protects the collection.
B.1.4 Staff		
Staff per Capita	B.1.4.1	To assess the number of library employees per 1 000 members of the population to be served. The number of persons in the population to be served can be considered proportional to the amount of work to be done.
B.2 Use Indicators that measure the usage of library resources and services (e.g. loans, downloads, and facilities use).		
B.2.1 Collection		
Collection Turnover	B.2.1.1	To assess the overall rate of use of a loan collection.
Loans per Capita	B.2.1.2	To assess the rate of use of library collections by the population to be served. It can also be used to assess the quality of the collections and the library's ability to promote the use of the collections.
Percentage of Stock not Used	B.2.1.3	To assess the amount of physical and electronic collections not used during a specified period. The indicator can also be used to assess the fit of the collection to the requirements of the population to be served.
Number of Content Units Downloaded per Capita	B.2.1.4	To assess whether users find items of interest in an electronic resource.
Number of Downloads per Document Digitized	B.2.1.5	To assess whether the library has digitized documents that are relevant for users.
B.2.2 Access		
Library Visits per Capita	B.2.2.1	To assess the library's success in attracting users of its services.

Table A.1 *(continued)*

Percentage of External Users	B.2.2.2	To assess the percentage of library users who do not belong to the library's population to be served and thus, the library's importance for learning and culture in the region and its impact and attraction outside its service area.
Percentage of the Total Library Lending to External Users	B.2.2.3	To assess the extent to which library loan services are used by external users and therewith to indicate the attractiveness of the library's collection to users outside the population to be served.
User Attendances at Library Events per Capita	B.2.2.4	To estimate the attraction of library events for the library's population to be served.
Number of User Attendances at Training Lessons per Capita	B.2.2.5	To assess the success of the library in reaching its users through the provision of training lessons.
B.2.3 Facilities		
User Places Occupancy Rate	B.2.3.1	To assess the overall use rate of user places provided for reading and working in the library, by estimating the proportion of the places in use at any given time.
B.2.4 General		
Percentage of the Target Population Reached	B.2.4.1	To assess the success of the library in reaching a target population.
User Satisfaction	B.2.4.2	To assess the degree to which users are satisfied with the library services as a whole or with different services of the library.
Willingness to Return	B.2.4.3	To assess the effectiveness of a reference transaction by the user's willingness to return to the reference desk (or to a virtual reference service).
B.3 Efficiency Indicators that measure resource and service efficiency (e.g. costs per loan, electronic resource access or download; time required to acquire or process documents; and correct answer fill rate).		
B.3.1 Collection		
Cost per Collection Use	B.3.1.1	The indicator assesses the library costs per collection use and therewith the cost-efficiency of library services.
Acquisition Cost per Collection Use	B.3.1.2	The indicator assesses the library's acquisition cost per collection use and therewith the effectiveness and user-orientation of the library's collection building policy.
Cost per Download	B.3.1.3	To assess the cost of a specified electronic resource related to the number of downloads from this resource.
B.3.2 Access		
Median Time of Document Acquisition	B.3.2.1	To assess the degree to which suppliers of library materials are effective, in terms of speed.
Median Time of Document Processing	B.3.2.2	To assess whether the different forms of processing procedures are effective as to speed.
B.3.3 Staff		
User Services Staff as a Percentage of Total Staff	B.3.3.1	To determine the library's effort devoted to public services in relation to the background services.
Correct Answer Fill Rate	B.3.3.2	To assess to what extent the staff are able to fulfil the primary requirement for a good reference service, namely to provide correct answers to questions.

Table A.1 *(continued)*

Ratio of Acquisition Expenditures to Staff Costs	B.3.3.3	To relate acquisition costs to staff costs in order to assess whether the library invests a relevant part of its income in the collection.
Employee Productivity in Media Processing	B.3.3.4	To measure the average number of acquired media (print and electronic documents) processed per employee in a certain period (usually one year). The indicator exemplarily demonstrates employee productivity.
Employee Productivity in Lending and Delivery Services	B.3.3.5	To assess the efficiency of the library's lending and delivery services.
Staff Costs per Title Catalogued	B.3.3.6	To assess the staff costs of a specific policy for producing bibliographic records and therewith the efficiency of the library's practices and processes.
B.3.4 General		
Cost per User	B.3.4.1	To assess the cost of the library's service related to the number of users.
Cost per Library Visit	B.3.4.2	To assess the cost of the library's service related to the number of library visits.
B.4 Potentials and Development Indicators that measure the library's input into emerging service and resource areas and its ability to gain sufficient funding for development (e.g. percentage of expenditures on electronic resources and attendances at formal training lessons by staff).		
B.4.1 Collection		
Percentage of Expenditure on Information Provision Spent on the Electronic Collection	B.4.1.1	To assess the extent to which the library is committed to building an electronic collection.
B.4.2 Staff		
Percentage of Library Staff Providing Electronic Services	B.4.2.1	To assess the extent to which the library invests human resources in providing technical support for electronic services.
Number of Attendance Hours at Formal Training Lessons per Staff Member	B.4.2.2	To assess the improvement of library staff skills by attending training lessons.
Percentage of Staff Time Spent in Training	B.4.2.3	To assess the percentage of staff time allocated to formal training activities for the purpose of enhancing staff skills.
Percentage of Staff in Cooperative Partnerships and Projects	B.4.2.4	To assess the library's local, regional, national, and international cooperation and therewith the library's importance in and impact on the library world.
B.4.3 General		
Percentage of Library Means Received by Special Grant or Income Generated	B.4.3.1	To assess the library's success in obtaining additional financial resources.
Percentage of Institutional Means Allocated to the Library	B.4.3.2	To measure the importance of the library (expressed in monetary units) and the support by the funding institution.

Annex B
(normative)

Description of performance indicators

See Table A.1 for the list of performance of indicators referenced in this Annex.

B.1 Resources, Access, and Infrastructure

B.1.1 Collection

B.1.1.1 Required Titles Availability

B.1.1.1.1 Objective

To assess to what extent titles owned or licensed by the library and in demand by the users are actually available when required.

B.1.1.1.2 Scope

This performance indicator is applicable to all libraries. Reference and loan collections should be measured separately.

This indicator can be used for specified collections, subject areas, branches, or time periods. For each specified area within the library, the resulting indicators can be compared to see if the availability differs significantly.

The indicator can be used for comparing libraries with the same mission, provided that the same method is used for calculating the indicator.

B.1.1.1.3 Definition of the indicator

The percentage of titles owned by the library and required by at least one user that are immediately available in either print or electronic format.

Available means, for the purpose of this indicator, that one or more copies of the title are available to users for loan, in-library use, or downloading. Copies to be retrieved from closed stacks are counted as being available.

Copies taken out for processing, such as cataloguing, classification, bookbinding, reshelving, etc., and copies missing because they are stolen, misplaced, etc. are counted as not available but the titles are included in the total number of titles. In addition, copies indicated as part of the electronic collection, but inaccessible to users at the time of request (e.g. simultaneous use, system downtime), are counted as not available but are included in the total number of titles.

Titles can, for the purpose of this indicator, include individual articles in journals, books, e-journals, or eBooks, or other catalogued documents or resources, if they are included in the total number of titles as well. What is included has to be stated explicitly in each case.

B.1.1.1.4 Method

Draw a random sample of titles owned or licensed by the library in print and electronic formats and required by at least one user. For each title in the sample, record whether a copy of that title is available.

For a rough measure for print titles, check only the records of the library. For a more accurate measure, check the actual copies. Titles in electronic formats shall be checked directly.

The Required Titles Availability is

$$\frac{A}{B}\times 100$$

where

A is the number of available required titles in the sample;

B is the total number of required titles in the sample.

Round off to the nearest integer.

A random sample of required titles can be established in two ways.

a) Ask a random sample of users what they are looking for in the library's print and electronic collections and then discard any titles not owned or licensed by the library. Only specific titles, not subject searches, are included in the sample. Remove duplicates of the same title. In order to achieve a truly random sample, either all required titles shall be taken from each user, or one title should be selected randomly from each user.

b) Draw a random sample using actual loan transactions, requests for off-site storage retrieval, circulation recalls, and in-library use of documents. Remove duplicates of the same title.

NOTE 1 Method a) can be used for print and electronic collections, method b) only for print collections.

NOTE 2 Method b) is less obtrusive to the users, but reflects only the demand for titles already acquired that have resulted in a loan transaction. For some purposes, the result is adequate.

For libraries with marked variations, e.g. seasonal variations, a more accurate indicator can be attained by measuring the Required Titles Availability at intervals over a period of time and then calculating the mean availability.

B.1.1.1.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100. It estimates the probability that a randomly selected title owned or licensed by the library and required by users is available. A high score means high availability.

In some libraries, marked seasonal variations are to be expected. Variations during the week or during the day can also be expected.

The indicator is affected by several factors. The most important are the following:

— number of copies of each title, especially titles in much demand;

— composition of the collection in relation to the demands of the users;

— standard loan period of the library, specific loan periods for titles in heavy demand, and the number of documents authorized for borrowing simultaneously;

— number of titles available in electronic format at the time of calculation.

Minor factors, such as the number of titles taken out for bookbinding or other processing, speed of reshelving, etc. will influence the score.

B.1.1.1.6 Source(s)

See the following references:

— Reference [23] p. 300;

— Reference [30] pp. 84 - 89 (“Availability”);

— Reference [33] pp. 60 - 71 (“Materials Availability”).

B.1.1.1.7 Related indicator(s)

Percentage of Required Titles in the Collection [ISO 11620:2014, B.1.1.2].

B.1.1.2 Percentage of Required Titles in the Collection

B.1.1.2.1 Objective

To assess to what extent titles in demand by the users are owned or licensed by the library. The indicator is used to assess the fit of the collection to the requirements of the users.

B.1.1.2.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for specified collections, subject areas, branches, or time periods. For each specified area within the library, the resulting indicators can be compared to see if the availability differs significantly.

The indicator can be used for comparing libraries with the same mission.

B.1.1.2.3 Definition of the indicator

The percentage of titles, required by at least one user, that is already owned or licensed by the library.

If a title has been published and ordered before the investigation but has not been received by the library, it is counted as owned by the library.

Titles can, for the purpose of this indicator, include individual articles in journals or books, if they are included in the total number of titles as well. What is included has to be stated explicitly in each case.

B.1.1.2.4 Method

Draw a random sample of titles required by at least one user, by asking a sample of users what they are looking for in the library. Include titles in print and electronic format. Sample only specific titles, not subject searches.

NOTE This method will not result in a truly random sample unless only one required title is taken from each user. For most purposes, the result is adequate even if all titles named are used.

Record for each title in the sample whether the library owns or has licensed a copy of that title.

The Percentage of Required Titles in the Collection is

$$\frac{A}{B} \times 100$$

where

A is the number of required titles in the sample owned or licensed by the library;

B is the total number of required titles in the sample.

Round off to the nearest integer.

B.1.1.2.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100. It estimates the probability that a title required by users is in the library's collection. A high score indicates a good fit between the collection and the requirements of the users.

NOTE As well as indicating a poor fit between the collection and the requirements of the users, a low score might also indicate that the users have a wrong perception of the subject coverage of the library. This could be addressed through the promotion of the library's services.

The results to be expected will depend on the type of library (e.g. special library or general library, academic library or public library, etc.).

B.1.1.2.6 Source(s)

See Reference [29] pp. 84 - 89 (Included in "Availability": called "Acquisition Rate" or "Ratio of Acquired items to Sought items").

B.1.1.3 Percentage of Rejected Accesses

B.1.1.3.1 Objectives

To establish whether there are sufficient licences for each electronic database to meet users' demands.

B.1.1.3.2 Scope

This performance indicator is applicable to all libraries with licensed electronic databases.

B.1.1.3.3 Definition of the indicator

The percentage of rejected accesses of the total attempted accesses for each licensed database during a specified time period.

Accesses by library staff and for user training should be included.

Accesses rejected because of incorrect passwords or user IDs are not included.

B.1.1.3.4 Method

Count the total number of attempted accesses on a database and the number of unsuccessful attempts during a specified time period.

The Percentage of Rejected Accesses is

$$\frac{A}{B}\times 100$$

where

A is the number of rejected accesses on a licensed database during a specified time period;

B is the total number of rejected and successful accesses on the electronic database during the same time period.

Round off to nearest integer, or one decimal place if less than 10.

B.1.1.3.5 Interpretation and factors affecting the indicator

The indicator is an integer in the range of 0 to 100. A high score indicates that the number of licenses is not adequate to users' needs.

The indicator should be considered separately for each database. There is nothing to be gained by calculating a global figure for all databases.

B.1.1.3.6 Source(s)

See Reference[11] (PI 10).

B.1.1.3.7 Related indicator(s)

Required Titles Availability (ISO 11620:2014, B.1.1.1).

B.1.1.4 Number of Documents Digitized per 1 000 Documents in the Collection

B.1.1.4.1 Objective

To assess to what extent the library fulfils its task of making the documentary heritage publicly available in digitized format.

B.1.1.4.2 Scope

The performance indicator is applicable to all libraries whose tasks include preserving and promoting the documentary heritage.

Comparing the results between libraries will be difficult, as the collection size can differ considerably. But comparison over time and with goals will be important for each library.

B.1.1.4.3 Definition of the indicator

The number of documents digitized (by the library itself or other institutions) per year per 1 000 documents in the collection.

NOTE 1 An item is only counted as digitized if the complete item has been copied.

NOTE 2 Digitization for preservation purposes is included.

NOTE 3 Mass digitization is included.

NOTE 4 Purchase of electronic copies for replacing print copies is excluded.

B.1.1.4.4 Method

Establish the number of documents in the library's collection. Count the number of documents digitized out of the collection in the reporting year.

The Number of Documents Digitized per 1 000 Documents in the Collection is

$$\frac{A}{B} \times 1\,000$$

where

A is the number of documents (physical units) digitized in the reporting year;

B is the total number of documents (physical units) in the library's collection.

Round off to the nearest integer.

B.1.1.4.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 1 000.

A high score shows the library's commitment to making its collection accessible.

The indicator will be influenced by the funding of local, regional, or national heritage programs.

B.1.1.4.6 Source(s)

See A.5.1 of Reference [5].

B.1.1.4.7 Related indicators

Number of Downloads per Document Digitized [ISO 11620:2014, B.2.1.5].

B.1.1.5 Percentage of the Owner Institution's Academic Publications in the Institutional Repository

B.1.1.5.1 Objective

To assess to what degree the academic publications of an institution are accessible through the institutional open access repository.

B.1.1.5.2 Scope

The performance indicator is applicable for libraries responsible for the institution's institutional repository.

The indicator could be used for one institution or a group of institutions, and include the storing of different kinds of academic publications, such as journal articles, eBooks, e-prints, technical reports, theses and dissertations, data sets, and teaching and learning materials.

Comparison is possible with other institutions with the same open access policy and organization.

B.1.1.5.3 Definition of the indicator

The percentage of the total number of the owner institution's academic publications, such as journal articles, eBooks, e-prints, technical reports, theses and dissertations, data sets, and teaching and learning materials, that are stored in the institution's open access repository.

Student works are not included.

The indicator could include masters' theses, or be used separately for these.

The indicator can only be used in institutions that keep records of published academic publications in the institution.

B.1.1.5.4 Method

It is desirable to calculate the indicator separately for records and open access full text academic documents.

1) To assess the percentage of the owner institution's academic publications available as records in the institutional repository:

— establish the total number of academic publications that have been published (journal articles, eBooks, e-prints, technical reports, theses and dissertations, data sets, and teaching and learning materials) in the institution during the last three years;

— establish the number of these publications that are recorded in the institutional repository.

The Percentage of the Owner Institution's Academic Publications in the Institutional Repository (records only) is

$$\frac{A}{B}\times 100$$

where

A is the number of records of the institution's academic publications in the institutional open access repository;

B is the number of academic publications published by the institution or the institution's scientific staff during the past three years.

Round off to nearest integer.

2) To assess the percentage of the owner institution's academic publications freely available as full text academic documents in the institutional repository:

— establish the total number of academic publications that have been published (journal articles, e-prints, technical reports, theses and dissertations, data sets, and teaching and learning materials) in the institution during the last three years;

— establish the number of these publications for which the full text is available for all users in the institutional open access repository.

The Percentage of the Owner Institution's Academic Publications in the Institutional Repository is

$$\frac{A}{B}\times 100$$

where

A is the number of the institution's academic publications stored in the institutional open access repository;

B is the number of academic publications published by the institution or the institution's scientific staff during the past three years.

Round off to the nearest integer.

B.1.1.5.5 Interpretation and factors affecting the indicator

The performance indicator is an integer between 0 and 100. A high score indicates a good access for external users to academic publications produced by the institution.

A low score could be caused by low knowledge about the benefits of open access publishing or by a missing open access policy in the institution.

B.1.1.5.6 Source(s)

See Reference.[6]

B.1.2 Access

B.1.2.1 Shelving Accuracy

B.1.2.1.1 Objective

To assess to what extent documents that are recorded in the library's catalogue are in their correct place on the shelves and thereby available for use.

B.1.2.1.2 Scope

The performance indicator is applicable to all libraries with physical collections.

The indicator can be used for specified collections, subject areas, or branch libraries. For each specified area within the library, the resulting indicators can be compared to see if the rate of accuracy differs significantly.

Comparisons between libraries are possible if differences in storage (open or closed stacks) and frequency of use are taken into consideration.

This indicator does not measure the speed of shelving.

B.1.2.1.3 Definition of the indicator

The percentage of documents recorded in the library's catalogue that is in the correct place on the shelves at the time of investigation.

Documents whose absence is accounted for in the library's records, e.g. by being on loan, taken out for bookbinding or repair, or noted as missing, are not included in the sample.

B.1.2.1.4 Method

a) Check a random sample of shelves with the help of a shelf-list. Record, for each document in the list, whether it is shelved correctly. For all missing documents, check whether their absence is accounted for in the library's records. If all documents in a collection are equipped with barcodes, scanning tools and wireless technology can be used instead of shelf-lists.

   In open access areas, the shelves should be checked out of opening times in order to include documents that have been used in-house. Documents awaiting shelving should be reshelved before counting.

The Shelving Accuracy is

$$\frac{A}{B}\times 100$$

where

A is the number of documents correctly shelved;

B is the total number of documents items in the sample (excluding those whose absence is accounted for in the library's records).

Round off to the nearest integer.

NOTE The number of missing documents comprises both documents that have been misplaced and those that have been stolen, if the latter have not been noted as missing in the library's records. This assumes that correct shelving implies frequent shelf-reading so that losses get noted at an early stage.

b) Check a random sample of shelves in the collection. Count the number of documents on each shelf in the sample. Record all documents that are found in the wrong place, irrespective of their being misplaced near to or far from their correct position. In open access areas, the shelves should be checked out of opening times in order to include documents that have been used in-house.

The Shelving Accuracy is

$$\frac{A-B}{A}\times 100$$

where

A is the total number of documents on the shelves at the time of investigation;

B is the number of misplaced documents on the shelves.

Round off to the nearest integer.

NOTE 1 As an estimate, the simpler method b) could be sufficient.

NOTE 2 If all documents in a collection are equipped with barcodes, scanning tools and wireless technology can be used in the counting of documents in the sampled shelves.

B.1.2.1.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100. A high score means high shelving accuracy. The shelving accuracy is affected by several factors. The most important are the following:

— the frequency of shelf-reading;

— the speed of reshelving.

The indicator could also point to the classification or other shelf-location system not being transparent and easy to use or to the need for a security system.

For libraries, with part of their collection in closed stacks and part in free access, or where use varies much between parts of the collection, shelving accuracy should be assessed for the different parts of the collection separately, as documents in open access areas and in frequent use will be more liable to misshelving.

B.1.2.1.6 Source(s)

See Reference [31] C 13.

B.1.2.1.7 Related indicator(s)

Required Titles Availability [ISO 11620:2014, B.1.1.1].

B.1.2.2 Median Time of Document Retrieval from Closed Stacks

B.1.2.2.1 Objective

To assess whether the retrieval processes are effective.

B.1.2.2.2 Scope

All libraries with part of their material in closed stacks.

Comparing libraries can be possible if local circumstances concerning buildings, transportation, etc. are taken into account.

B.1.2.2.3 Definition of the indicator

The median time elapsed between the request for a document placed in closed stacks and the moment it is available to the user.

The time interval is measured in library business hours (the hours the library is open for business, excluding weekends, holidays, or other days when the library is closed).

B.1.2.2.4 Method

Draw a random sample of documents owned by the library, stored in closed stacks and requested by the users.

Register, for each request, the date and time of the day when the request was submitted and the time when the document was ready to be collected by the user. Subtract the starting time from the finishing time, expressed in minutes or hours as seems most fit.

The Median Time of Document Retrieval from Closed Stacks is established by ranking the requests in ascending order by the retrieval time. The median time is the value of the request in the middle of the ranking list. If the number of requests is even, the median time is the average of the two values in the middle of the ranking list, rounded off to the nearest minute.

The sample can be established in two different ways.

a) The sample is drawn among the titles owned by the library and not on loan. The requests are made by the investigators or their proxies at random times during the sampling period and the time of handing in the request is recorded.

b) The sample is drawn among actual requests at the time when the documents are ready to be collected by the user. The method presumes that the date and time of the request is recorded as part of the normal routine.

NOTE 1 Failed requests are left out of the calculation, since no finishing time can be assigned to a failed request.

NOTE 2 Requests for documents in off-site storage should be counted separately.

B.1.2.2.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. The indicator is expressed in minutes or hours and minutes.

A short retrieval time is considered good. The retrieval time can be affected by the number of orders at peak times, by storage conditions, or shelving accuracy.

Delivery of materials stored in closed stacks placed in distant locations can take more time.

Results should be compared to the standard of service to which the library has committed.

B.1.2.2.6 Source(s)

See the following references:

— Reference;[10]

— Reference [31] pp. 202 - 205 (“Lending Speed”);

— Reference [35] pp. 112 (item F 95).

B.1.2.2.7 Related indicator(s)

Speed of Interlibrary Lending [ISO 11620:2014, B.1.2.3]; Shelving Accuracy [ISO 11620:2014, B.1.2.1].

B.1.2.3 Speed of Interlibrary Lending

B.1.2.3.1 Objective

To assess the time interval for successfully completing an interlibrary loan or electronic document delivery transaction, from the initial request to sending the requested item(s).

B.1.2.3.2 Scope

This performance indicator is applicable to all libraries participating in interlibrary lending and electronic document delivery services.

Comparison is possible between libraries of similar mission and goals if a similar type of lending and delivery system is used.

B.1.2.3.3 Definition of the indicator

The number of hours required for library staff to successfully complete an interlibrary loan or electronic document delivery transaction.

A request is complete when the item is sent to the requesting library by the lending library.

The time interval is measured in library business hours (the hours the library is open for business, excluding weekends, holidays, or other days that the library is closed).

An interlibrary loan is a loan of a document in physical form or a delivery of a document, or part of it, in copied form, from one library to another which is not under the same administration.

An electronic document delivery in the sense of this indicator is the electronic transmission of a document or part of a document from the library collection to a user, mediated by library staff, not necessarily via another library.

Time received is the date and time the request is received by the lending library.

Time sent is the date and time the item requested was sent to the requesting library.

If only one of the services is available in the library (e.g. interlibrary lending or electronic document delivery), the same indicator can be used for the single service.

B.1.2.3.4 Method

The Speed of Interlibrary Lending is

$$\frac{A}{B}$$

where

A is the total number of hours to complete a specified number of interlibrary loans or electronic document delivery transactions;

B is the number of interlibrary loan plus electronic document delivery transactions included in A.

Exclude days library is closed for business. Round to the nearest whole hour.

Sampling is possible. The recommended method is “typical week.” A “typical week” is a time that is neither unusually busy nor unusually slow. Avoid holidays, vacation periods, and days when unusual events are taking place in the community or in the library. Choose a week in which the library is open regular hours.

If “full count” method is preferred, data should be collected monthly to reduce the burden to staff when analysing the results.

If only one of the services is available in the library (e.g. interlibrary lending or electronic document delivery), then A and B would reflect the single service available.

B.1.2.3.5 Interpretation and factors affecting the indicator

The indicator is a positive real number with no top limit.

A lower score is usually considered as good. It will inform the library whether its processes are organized efficiently.

The indicator will be influenced by internal conditions. Staffing, collection size, days the library can be closed for business, and delivery delays can greatly influence the score.

The indicator should be judged against the mission and objective of the library.

B.1.2.3.6 Source(s)

See 5.3 of Reference[20]).

B.1.2.3.7 Related indicator(s)

Percentage of Successful Interlibrary Loans [ISO 11620:2014, B.1.2.4]; Median Time of Document Retrieval from Closed Stacks [ISO 11620:2014, B.1.2.2].

B.1.2.4 Percentage of Successful Interlibrary Loans

B.1.2.4.1 Objective

To assess the fulfilment of interlibrary loans and electronic document delivery requests relative to the total number of interlibrary loans and electronic document delivery requests.

B.1.2.4.2 Scope

This performance indicator is applicable to all libraries participating in interlibrary lending and document delivery services.

The indicator excludes resource sharing within the same library administration.

B.1.2.4.3 Definition of the indicator

The percentage of successfully completed interlibrary lending or electronic document delivery transactions.

Successful completion of an interlibrary lending or electronic document delivery transaction is when an item requested is delivered to the requesting library or user.

Delivery includes all methods of transmission of an item (e.g. facsimile, digital image, pdf, postal, or other form of surface delivery service).

An interlibrary loan is a loan of a document in physical form or a delivery of a document, or part of it, in copied form, from one library to another which is not under the same administration.

An electronic document delivery in the sense of this indicator is the electronic transmission of a document or part of a document from the library collection to a user, mediated by library staff, not necessarily via another library.

Resource sharing within the same library administration is excluded.

B.1.2.4.4 Method

The Percentage of Successful Interlibrary Loans is

$$\frac{A}{B}\times 100$$

where

A is the number of successful interlibrary loan and electronic document delivery transactions;

B is the total of all interlibrary loan and electronic document delivery requests.

Round off to the nearest integer.

Collection point is the library department responsible for interlibrary lending and electronic document delivery.

The total number of all requests and successful interlibrary lending and electronic document delivery transactions is required.

Effort is low for libraries with automated methods for determining the number of interlibrary loan and electronic document delivery requests and successfully completed transactions.

Sampling is possible. The recommended method is “typical week.” A “typical week” is a time that is neither unusually busy nor unusually slow. Avoid holidays, vacation periods, and days when unusual events are taking place in the community or in the library. Choose a week in which the library is open regular hours.

B.1.2.4.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

A higher score is usually considered as good. It is an indicator of the quality of the library’s collection and shows the library’s importance to the library community.

The indicator will be influenced by a high percentage of documents on loan or not available for lending at the time of collection.

A low score can indicate that other libraries have an incorrect perception of the subject coverage of the library to which they send the requests.

The indicator should be judged against the mission and objective of the library.

B.1.2.4.6 Source(s)

See Reference [20] (3.0).

B.1.2.4.7 Related indicator(s)

Speed of Interlibrary Lending [ISO 11620:2014, B.1.2.3].

B.1.2.5 Speed of Reference Transactions

B.1.2.5.1 Objective

To assess whether reference answers are provided in a timely manner. The indicator can also be used to analyse the effectiveness of processes in reference services.

B.1.2.5.2 Scope

The indicator is relevant for all libraries.

Comparison is possible between libraries of similar mission and goals if a similar type of reference service is provided (e.g. online reference).

B.1.2.5.3 Definition of the indicator

The average total time (commonly known as turnaround time) required to complete reference transactions, measured in minutes.

NOTE 1 This measures the total time of the transaction, not the staff time spent on the transaction.

NOTE 2 The time interval considers only library business hours (the hours the library is open for business, excluding weekends, holidays, or other days that the library is closed).

NOTE 3 Reference questions can regard facts, documents, or advice on sources for the user’s subject.

NOTE 4 The definition excludes directional and administrative inquiries, e.g. for locating staff or facilities, regarding opening times, about handling equipment, such as reader printers or computer terminals, using self-service functions.

NOTE 5 Reference questions can be delivered by telephone, mail, electronic means (such as e-mail, text messaging, or digital reference software) or personally (face to face).

B.1.2.5.4 Method

Draw a random sample of reference transactions. A sample period should be a typical week, which is neither unusually busy nor unusually quiet. Sample periods can be selected from various months throughout the year to offset peak periods and off periods. Exclude days when the library is closed for business. During the sample week, keep a count of the reference transactions on a daily basis, and count only those questions that are both initiated and completed in the same one-week period.

Record for each transaction the date and time that the library receives a reference question and the date and time that the library delivers the answer to the users. Negative answers (e.g. no source found) are included. The data can be collected by unobtrusive testing sheets. For digital reference transactions, the data can be collected by electronically generated log.

The time needed for each delivery should be calculated by counting only the business hours of the reference services on the sampling days. Include all time taken before providing the answer to the user regardless of the actual time spent working on the specific inquiry.

NOTE Libraries might want to assess different modes of reference transactions (online, face-to-face, etc.) separately.

The Speed of Reference Transaction is

$$\frac{A}{B}$$

where

A is the total number of minutes to complete the reference transactions in the sample;

B is the number of reference transactions in the sample.

B.1.2.5.5 Interpretation and factors affecting the indicator

The indicator is a positive real number. The top limit is equivalent to the number of minutes in the sample period.

A lower score is usually considered as good. It will inform the library whether its processes are organized efficiently.

When interpreting the results of this indicator, libraries should pay special attention to the quality of the reference answers. It is not always desirable to have shorter turnaround times because in such cases accuracy can be impeded by speed. When a question is complicated or a user expects a comprehensive answer, longer turnaround time might result in better service for the user. Type and speciality of a question will greatly influence the indicator result.

Some transactions can take much longer than others. It is useful to analyse the median speed and the distribution of turnaround times in such cases.

B.1.2.5.6 Source(s)

See A.6.2 of Reference [5].

B.1.2.6 Percentage of Rare Materials Accessible via Web Catalogues

B.1.2.6.1 Objective

To assess whether the rare collections are accessible via the web. The indicator also measures the library's engagement in promoting its rare collection.

B.1.2.6.2 Scope

The performance indicator is applicable to all libraries with rare collections.

Comparison between libraries can be affected by national or regional funding for retrospective cataloguing.

B.1.2.6.3 Definition of the indicator

Percentage of rare materials in a library's collection that can be retrieved in the web catalogue/s of the library.

In the sense of this indicator, rare materials are incunabula, manuscripts, books published before 1800, and newer books that are made precious by their limited issue, by their binding, by dedications, and similar characteristics.

NOTE 1 Usually, such materials will belong to special collections with special shelf marks and will be shelved separately in a secure location to which access is restricted.

NOTE 2 The definition excludes archives and records concerning private persons, institutions, and organizations (collections containing manuscripts, letters, notes, photos, and other material given by bequest to the library or purchased as such by, or on behalf of, the library).

B.1.2.6.4 Method

Count the total number of rare materials (titles) in the library's collections. If the real number is not available, an estimate should be made.

Count the number of rare materials' cataloguing records that are contained in the library's web catalogue/s.

The Percentage of Rare Materials Accessible via Web Catalogues is

$$\frac{A}{B}\times 100$$

where

A is the number of rare materials retrievable via web catalogues;

B is the total number of rare materials.

Round off to nearest integer.

The indicator can be split up as to materials.

B.1.2.6.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

A high score is considered good. It means that a high percentage of the rare material is retrievable via web catalogues and therefore can be easily located by users.

If the score is low, the library could, for example, initiate projects for retrospective cataloguing of rare materials directly into the web catalogues.

B.1.2.6.6 Source(s)

See A.2.2 of Reference [5].

B.1.2.7 Percentage of the Rare Collection in Stable Condition

B.1.2.7.1 Objective

To assess whether the rare collection is usable and accessible in its original form. The indicator thereby assesses the adequacy of the library's activity to preserve the originals.

B.1.2.7.2 Scope

The indicator is relevant for all libraries whose tasks include preserving the documentary heritage.

Comparison between libraries with similar mission and collections is possible.

B.1.2.7.3 Definition of the indicator

The percentage of rare materials in the collection that is in a stable condition.

Stable condition is defined as suitable for use. Stable material might have some damage but can be used without immediate risk of further damage. Unstable material will be further damaged if used.

The indicator is restricted to the print and manuscript collection.

B.1.2.7.4 Method

A random sample of 400 items of the print or manuscript rare collections is surveyed as to the condition of items in the sample. Items are classified in four categories:

1) good condition: usable with the normally advisable care for the collection;

2) fair condition: damaged, but stable if used with extra care and attention;

3) poor condition: moderately deteriorated, no use possible without further damage;

4) unusable condition: strongly deteriorated, item is to be excluded from use by its fragility, by mould, or pest infestation respectively.

Categories 1 and 2 would be counted as stable, categories 3 and 4 as unstable.

The Percentage of the Rare Collection in Stable Condition is

$$\frac{A}{B}\times 100$$

where

A is the number of items in stable condition;

B is the total number of items in the sample.

Round off to the nearest integer.

The indicator could be expanded to include the total collection.

B.1.2.7.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

A high score is usually considered as good.

The indicator will be influenced by the frequency of use of the collections, the storage conditions, and the availability of funding for preservation/conservation measures.

If the results show low stability, further surveys could target specific parts of the collection (e.g. medieval or modern manuscripts, cartographic material, newspapers) or the special kind of damage (e.g. mechanical, biological, acid paper) in order to prioritize preservation activities. Measures taken can include:

— improvement of environmental conditions (temperature and relative humidity);

— changes in handling methods;

— storage in enclosures, e.g. boxes;

— conservation treatment;

— mass deacidification;

— rebinding;

— substitution of unusable items by copies or surrogates.

B.1.2.7.6 Source(s)

See A.8.1 of Reference [5].

B.1.2.7.7 Related indicators

Percentage of Rare Materials Needing Conservation/Restoration Treatment that Received Such Treatment [ISO 11620:2014, B.1.2.8]; Percentage of Storage Space which has an Appropriate Environment [ISO 11620:2014, B.1.3.4].

B.1.2.8 Percentage of Rare Materials Needing Conservation/Restoration Treatment that Received Such Treatment

B.1.2.8.1 Objective

To assess the library's activities in the conservation of rare material in its original form.

B.1.2.8.2 Scope

The indicator is relevant for all libraries with rare materials collections.

Comparing the results between libraries will be difficult, as the rare collections will differ considerably. But comparison over time and with goals will be important for each library.

B.1.2.8.3 Definition of the indicator

The percentage of all rare materials needing conservation/restoration treatment that received such treatment during one year.

In the sense of this International Standard, rare materials are defined as incunabula, manuscripts, books published before 1800, and newer books that are made precious by their limited issue, by their binding, by dedications, and similar characteristics.

NOTE 1 In the context of this indicator, conservation/restoration is restricted to the treatment of rare materials and means manual treatment techniques such as reinforcing joints or mending tears.

NOTE 2 Mass conservation (deacidification) is excluded.

B.1.2.8.4 Method

The number of rare materials items that received conservation/restoration treatment is counted during a reporting year. The number of items needing conservation/restoration treatment is assessed by a survey (see “Percentage of the Collection in Stable Condition”). The groups 3 and 4 in the survey need such treatment.

The Percentage of Rare Materials Needing Conservation/Restoration Treatment that Received Such Treatment is

$$\frac{A}{B} \times 100$$

where

- A is the number of rare materials needing conservation/restoration treatment at the start of the reporting period that received such treatment during the reporting year;
- B is the total number of rare materials needing conservation/restoration treatment at the start of the reporting period.

Round off to the nearest integer.

B.1.2.8.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

A high percentage will be considered as good.

In order to get a more detailed view of conservation activities, the indicator should be calculated for different types of materials, e.g. manuscripts, newspapers, cartographic material.

If the results show a low percentage of items treated, actions to be taken could be:

— promoting the importance of preserving the documentary heritage in its original form via public media;

— trying for additional funds, e.g. by an adopt-a-book programme.

Given the marketing potential of rare material, such activities can be successful.

B.1.2.8.6 Sources(s)

See A.8.2 of Reference [5].

B.1.2.8.7 Related indicators

Percentage of the Rare Collection in Stable Condition [ISO 11620:2014, B.1.2.7]; Percentage of Storage Space which has an Appropriate Environment [ISO 11620:2014, B.1.3.4].

B.1.3 Facilities

B.1.3.1 User Area per Capita

B.1.3.1.1 Objective

To assess the importance of the library as a place for study, meeting, and as a learning centre, and indicate the institution's support for these tasks.

B.1.3.1.2 Scope

This performance indicator is applicable to all libraries with physical premises.

Comparison can be possible if differences in the mission of the library and population to be served are considered.

B.1.3.1.3 Definition of the indicator

The total user area offered by the library per 1 000 members of the population to be served.

User area in the sense of this indicator is the net useable area for user services. It includes space for reading and studying (individual or group), lending, reference and information, and any other services delivered to users, self-service areas (lending and returning plus sorting robots), also areas for recreation and communication, sickrooms, the entrance hall, and open access storage areas, as integrated parts of user service areas. (See ISO 2789:2013.)

Premises not usually available to users should be excluded.

B.1.3.1.4 Method

Establish the library's total user area in square metres.

User Area per Capita is

$$\frac{A}{B}\times 1\,000$$

where

A is the library area available for user services expressed, in square metres;

B is the number of persons in the population to be served.

Round off to the nearest integer.

B.1.3.1.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. A higher score will usually be considered good.

The indicator is affected by the extent to which the institution provides studying, reading, and meeting facilities outside the library premises.

B.1.3.1.6 Source(s)

See Reference [31] pp. 46 - 50

B.1.3.2 User Places per Capita

B.1.3.2.1 Objective

To assess the availability of user places in the library.

B.1.3.2.2 Scope

This performance indicator is applicable to all libraries with a defined population to be served and with reading and working facilities.

B.1.3.2.3 Definition of the indicator

The ratio of publicly available user places, whether with or without equipment, per 1 000 defined library population to be served.

For this indicator, user places include places in carrels, in seminar and study rooms and the audiovisual and children's departments of the library, and informal seating in lounges and group areas.

Excludes places in halls and lecture and auditory theatres intended for audiences of special events. Also excludes floor space and cushions on which users can sit. Also excludes seats reserved exclusively for the use of staff.

B.1.3.2.4 Method

Establish the number of user places available in the library.

The User Places per Capita is

$$\frac{A}{B} \times 1\,000$$

where

A is the number of available user places;

B is the number of persons in the population to be served.

Round off to the nearest integer.

B.1.3.2.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit. A higher score is usually considered as good.

The number of user places provided elsewhere in the institution for reading, studying, or working might have an impact on the interpretation of this indicator.

B.1.3.2.6 Source(s)

See the following references:

— Reference [27] 3.3a (variation of "Total Reading and Working Places");

— Reference [33] pp. 82 - 88 (a special case of "Facilities Use Rate").

B.1.3.2.7 Related indicator(s)

User Places Occupancy Rate [ISO 11620:2014, B.2.3.1].

B.1.3.3 Hours Open Compared to Demand

B.1.3.3.1 Objective

To assess to what degree the opening hours of a library correspond to users' needs.

B.1.3.3.2 Scope

This performance indicator is applicable to all libraries.

Comparison can be possible if differences in the mission and population to be served of the library are considered.

The indicator can be used with different target groups, e.g. students, academic staff, elderly people, etc.

The indicator can be used for branch libraries or departments of the library with different opening times.

B.1.3.3.3 Definition of the indicator

The actual number of a library's opening hours compared to the number of hours needed by users.

Opening hours in the sense of this indicator are the hours in a normal week that the main physical services of the library (e.g. reference and loan services, reading rooms) are available to users.

B.1.3.3.4 Method

Design a simple questionnaire asking for satisfaction with opening hours and giving the option to name additional times the library should be open and existing opening hours that are not needed. Questions about user status can be included as they will help to identify the needs of special user groups.

EXAMPLE Example of a survey:

How would you rate your satisfaction with the present opening times of the library?

[ ] Very Unsatisfactory

[ ] Unsatisfactory

[ ] Moderately Satisfactory

[ ] Satisfactory

[ ] Very Satisfactory

Please specify the hours other than the present hours you need the library to be open, by placing an "O" in the appropriate box.

The present opening hours are indicated by an “X”. As the library might not be able to meet the demand for additional opening hours, please indicate which present hours are not necessary for you by crossing through the appropriate “X” in the box.

Opening hours	**Day of the week**						
	Mon	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**	**Sun**
7 to 8							
8 to 9	X	X	X	X	X		
9 to 10	X	X	X	X	X		
10 to 11	X	X	X	X	X	X	
11 to 12	X	X	X	X	X	X	
12 to 13	X	X	X	X	X	X	
13 to 14	X	X	X	X	X	X	
14 to 15	X	X	X	X	X	X	
15 to 16	X	X	X	X	X	X	
16 to 17	X	X	X	X	X	X	
17 to 18	X	X	X	X	X	X	
18 to 19	X	X	X	X	X	X	
19 to 20	X	X	X	X	X		
20 to 21	X	X	X	X	X		
21 to 22	X	X	X	X	X		
22 to 23							
23 to 24							

Libraries might want to modify the hours in the table to meet their service context.

Draw a random sample of users and ask them to complete the questionnaire. The data can be collected through a number of questionnaire types (e.g. printed survey distributed in the library, postal mail, electronic, telephone interview) as appropriate. The survey could also be added to a comprehensive survey of user satisfaction with the library’s services.

If libraries have different open hours during academic term or vacation, it would be advisable to have separate surveys during term and vacation time.

The Hours Open Compared to Demand is

$$\frac{A}{B}$$

where

A is the number of current opening hours;

B is the number of hours identified as being needed by a minimum of 10 % of survey respondents.

EXAMPLE If a library is open 60 h per week and in the questionnaire, users ask for 10 additional hours, and the users select 3 h they do not need, the score would be 60:67 = 0,90.

B.1.3.3.5 Interpretation and factors affecting the indicator

If a high percentage of respondents is dissatisfied with the existing open hours and asks for extended hours or a different distribution of hours over the day/week, libraries should react to modify and/or extend their open hours. This can be difficult, especially if users demand extended times at weekends or during the night.

The proposed method shows whether users need additional opening hours, what time of the day/week such additional opening hours are required, and whether existing opening hours are not needed.

A possible solution might be to open the library without offering full service, so that non-professional staff could run the library during these times.

Libraries should also review the usage of their opening hours by counting visits and monitoring user activities during different opening hours.

The indicator will be affected by other libraries nearby offering extended opening hours for reading and studying.

Budgetary and other local factors can affect a library's ability to meet user requests for additional opening hours.

B.1.3.3.6 Source(s)

See the following references:

— Reference [18] p. 15 ("Opening Hours Compared to Demand");

— Reference [31] pp. 54 - 59 ("Opening Hours Compared to Demand").

B.1.3.4 Percentage of Storage Space Which Has an Appropriate Environment

B.1.3.4.1 Objective

To assess whether the storage environment adequately protects the collection.

B.1.3.4.2 Scope

The indicator is relevant for all libraries whose tasks include preserving the documentary heritage. It is relevant for the whole physical collection.

Comparison between libraries with similar mission and collections is possible.

B.1.3.4.3 Definition of the indicator

The percentage of storage space for the collection that offers an appropriate environment.

In the sense of this indicator, appropriate environment is defined as adequate temperature, relative humidity (RH), light, and air quality. The adequacy of temperature, RH, light, and air quality for the long-term preservation of the main library and archive materials is defined by the ranges recommended in the International Standard on document storage requirements (see ISO 11799).

In reference to RH and temperature, ISO 11799 recommends the following parameters:

a) For the storage of paper, which should be preserved as long as possible, a minimum temperature of 2 °C and a maximum temperature of 18 °C with a daily tolerance of ±1 °C within the limits is obligatory. RH should be at a fixed point between 30 % and 45 % with a daily tolerance of ±3 % within the limits.

b) For paper in frequently used stock areas, ISO 11799 advocates a minimum temperature of 14 °C and a maximum temperature of 18 °C with a daily tolerance of ±1 °C within the limits. RH should be at a fixed point between 35 % and 50 % with a daily tolerance of ±3 % within the limits.

c) For the storage of parchment and leather, ISO 11799 advises a minimum temperature of 2 °C and a maximum temperature of 18 °C with a daily tolerance of ±1 °C. RH should be at a fixed point between 50 % and 60 % with a daily tolerance of ±3 % within the limits.

Rapid changes of temperature and RH should be avoided with all materials.

In reference to the potential damage by light and lighting, visible radiation as well as ultraviolet radiation has to be controlled continuously. Ultraviolet radiation should be eliminated as much as possible. Daylight should be excluded from the storage rooms and use of artificial light should be kept to a minimum. Light intensity in storage rooms should not exceed 200 lx in terms of the floor. Light intensity in exhibitions should be no more than 50 lx.

ISO 11799:2003 also specifies the critical values of the most common pollutants, e.g. sulfur dioxide, nitrogen oxides, and atmospheric ozone (see ISO 11799:2003, pp. 10 - 11 and Table A.1, p. 15).

B.1.3.4.4 Method

Due to climate changes over the day and in the seasons, the data of temperature and RH should be collected during a reporting year by non-stop measuring in storage rooms with professional measuring instruments.

The area (in square metres) of storage rooms with appropriate environmental conditions is compared with the total area of storage rooms in the library.

NOTE Reading rooms with collections are excluded, as they are normally conditioned for the comfort of the library's users rather than for the preservation of the collection.

The Percentage of Storage Space which has an Appropriate Environment is

$$\frac{A}{B}\times 100$$

where

A is the area of storage rooms with adequate environmental conditions;

B is the total area of storage rooms in the library.

Round off to the nearest integer.

B.1.3.4.5 Interpretation and factors affecting the indicator

The performance indicator is an integer between 0 and 100.

A high percentage will be considered as good.

If routine monitoring shows constant levels of temperature, RH, and light according to ISO 11799, the environmental conditions for the documents are optimal.

It should be kept in mind that in some countries with high temperature and humidity, the real environment can deviate from the appropriate environment defined by ISO 11799.

Environmental monitoring can be relatively easy and inexpensive. It can be difficult to attain the standards without installation of an air conditioning system, but it is important to aim for stability of environment given the damaging influence of temperature and RH. By using ultraviolet protective glass or filter, curtains, and sunshades to avoid the penetration of sunlight, the environmental conditions in storage and reading rooms can be optimized.

The potential damage by pollution can be reduced by filtering external air entering storage areas, or if filtration is not possible, by closing windows and doors effectively. To minimize the internal pollution of materials, equipment components, e.g. paints, have to be tested under this aspect. The use of storage enclosures in archival quality will protect collections considerably.

B.1.3.4.6 Source(s)

See A.8.3 of Reference [5].

B.1.3.4.7 Related indicators

Percentage of the Rare Collection in Stable Condition [ISO 11620:2014, B.1.2.7]; Percentage of Rare Materials Needing Conservation/Restoration Treatment that Received Such Treatment [ISO 11620:2014, B.1.2.8].

B.1.4 Staff

B.1.4.1 Staff per Capita

B.1.4.1.1 Objective

To assess the number of library employees per 1 000 members of the population to be served. The amount of work to be done can be considered proportional to the number of persons in the population to be served.

B.1.4.1.2 Scope

This performance indicator is applicable to all libraries with a defined population to be served.

Comparing libraries can be possible if differences in the mission of the library and socio-economic factors in the population are taken into account.

B.1.4.1.3 Definition of the indicator

The ratio of employees including student assistants and project employees defined per 1 000 members in the population to be served.

B.1.4.1.4 Method

Obtain the number of employees (FTE) including student assistants and project staff.

To calculate the FTE for part-time employees:

— annual employment: weekly working hours divided by the regular working hours per week;

— non-annual employment: weekly working hours divided by the regular working hours per week and then multiplied with the quotient (number of weeks employed/52).

The Staff per Capita is

$$\frac{A}{B} \times 1\,000$$

where

A is the number of employees in FTE;

B is the number of persons in the population to be served.

Round off to the nearest integer.

B.1.4.1.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit.

A high score is usually considered as good. This indicator should only be considered in combination with indicators measuring the quality of services and the efficiency of processes.

B.1.4.1.6 Source(s)

See the following references:

— Reference [9] (PI 1.2);

— Reference [31] pp.82 - 87.

B.2 Use

B.2.1 Collection

B.2.1.1 Collection Turnover

B.2.1.1.1 Objective

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

The indicator can also be used to assess the fit of the collection to the requirements of the population to be served.

B.2.1.1.2 Scope

This performance indicator is applicable to all libraries with a loan collection.

Can be used with specified collections, subject areas, branches, or new acquisitions. For each specified area within the library, the resulting indicators can be compared to see if the turnover differs significantly.

Can be used for comparing libraries with the same mission, if the same time period is used.

B.2.1.1.3 Definition of the indicator

The total number of loans in the specified collection during a specified period of time, normally one year, divided by the total number of documents in the collection.

A loan is a direct lending or delivery transaction of an item in non-electronic form (e.g. book), or of an electronic document on a physical carrier (e.g. CD-ROM) or other device (e.g. eBook reader), or transmission of an electronic document to one user for a limited time period (e.g. eBook).

NOTE 1 Renewals are excluded, but could be counted separately.

NOTE 2 Loans include registered loans within the library (on-site loans).

NOTE 3 Loans include copied documents supplied in place of original documents (including fax) and printouts of electronic documents made by library staff for the user.

NOTE 4 Loans of documents in physical form to distance users are included.

NOTE 5 Mediated electronic transmission of documents is counted as electronic document delivery if their use is permitted for unlimited time. This includes transmissions to members of the population to be served.

[SOURCE: ISO 2789:2013, 2.2.19]

B.2.1.1.4 Method

Count the number of loans registered in the specified period for the collection specified. Count the total number of documents in the collection.

The Collection Turnover is

$$\frac{A}{B}$$

where

A is the number of registered loans in the specified collection;

B is the total number of documents in the specified collection.

Round off to one decimal place.

If the total number of documents is not available, an estimate can be substituted. Such estimates are the length of the shelf list, or the length of occupied shelves in the loan collection, multiplied by the estimated mean number of documents per unit length.

If a large number of reference copies are intermixed with copies for loan in the collection, the reference copies should not be included in the calculations.

B.2.1.1.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. The normal range will depend upon the type of library. The indicator estimates the mean number of times the documents in the collection have been on loan during one year, but the library can measure the turnover during another period of time. The higher the number, the more intensive is the rate of use.

The Collection Turnover is influenced by several factors:

— the composition of the collection in relation to the demands of the users; a collection with a large proportion of out-of-date or inappropriate material will result in a lower turnover;

— the policy of the library in weeding out obsolete titles and extra copies no longer needed;

— the number of copies of titles in much demand;

— the proportion of in-library use to loans; high in-library use can result in lower turnover rates;

— the standard loan period of the library and any special loan periods for titles in demand, and the number of documents authorized for borrowing simultaneously;

— the promotional activities of the library and the skills of the staff in the area of promotion.

Where data on individual documents is available from the library's circulation system, further details can be provided by calculating

— the percentage of stock not used within a specified period and

— the percentage of stock used at least once within a specified period.

B.2.1.1.6 Source(s)

See the following references:

— Reference [22] pp. 38 - 40;

— Reference [25] p. 31 ("Circulation Rate");

— Reference [31] pp. 128 - 131 ("Collection Use");

— Reference [33] p. 47 ("Turnover Rate", includes documents in reference collection);

— Reference [34] pp. 54 - 55 ("Circulation per Volume Held", given as a variation of "Circulation". On p. 60, also "Total Materials Use by Volume Held", given as a variation on "Total Materials Use" and including in-library use).

B.2.1.2 Loans per Capita

B.2.1.2.1 Objective

To assess the rate of use of library collections by the population to be served. It can also be used to assess the quality of the collections and the library's ability to promote the use of the collections.

B.2.1.2.2 Scope

This performance indicator is applicable to all libraries with a loan collection.

The indicator can be used with specified collections, subject areas, or branches. For each specified area within the library, the results can be compared.

The indicator can be used for comparing libraries if differences in the mission of the library, socio-economic factors, and lending periods are taken into account.

B.2.1.2.3 Definition of the indicator

The total number of loans in a year divided by the population to be served.

A loan is a direct lending or delivery transaction of an item in non-electronic form (e.g. book), or of an electronic document on a physical carrier (e.g. CD-ROM) or other device (e.g. eBook reader), or transmission of an electronic document to one user for a limited time period (e.g. eBook).

NOTE 1 Renewals are excluded, but could be counted separately.

NOTE 2 Loans include registered loans within the library (on-site loans).

NOTE 3 Loans include copied documents supplied in place of original documents (including fax) and printouts of electronic documents made by library staff for the user.

NOTE 4 Loans of documents in physical form to distance users are included.

NOTE 5 Mediated electronic transmission of documents is counted as electronic document delivery if their use is permitted for unlimited time. This includes transmissions to members of the population to be served.

B.2.1.2.4 Method

The Loans per Capita is

$$\frac{A}{B}$$

where

A is the total number of loans in a year;

B is the number of persons in the population to be served.

Round off to nearest integer, or to one decimal place if less than 10.

For the purpose of this indicator, copies provided by the library as substitutes for loans can be included. Interlibrary loans are excluded. It is important that the inclusions and exclusions are described when the indicator is used for comparing libraries.

B.2.1.2.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit.

A change in loan periods or in the number of books authorized for borrowing simultaneously can affect the indicator substantially. Further details can be provided by analysing the indicator by subject or by different categories of borrowers. The indicator can also be used to show areas where demand is low or unsatisfied and to point to areas where use could be increased.

The indicator is sensitive to a number of uncontrollable variables and relates only to lending. In particular, it can be affected by the studying conditions in the library, levels of literacy, levels of poverty, and other socio-economic variables.

There is a strong relation between the indicator and the ability of the library staff to promote the collection.

B.2.1.2.6 Source(s)

See Reference [33] pp. 42 - 44 (“Circulation per capita”).

B.2.1.3 Percentage of Stock Not Used

B.2.1.3.1 Objective

To assess the amount of physical and electronic collections not used during a specified period. The indicator can also be used to assess the fit of the collection to the requirements of the population to be served.

B.2.1.3.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for specified collections, subject areas, branches, or time periods. The indicator should be calculated separately for the physical and electronic collections of the library.

Within each of these categories, the resulting indicators can be compared to see whether the percentage of items not used differs significantly.

B.2.1.3.3 Definition of the indicator

The percentage of documents in the library collection not used during a specified period (rounded off to the nearest integer).

Used means, for the purpose of this indicator, that an item has been recorded as having been on loan, or has otherwise been registered as having been used during the specified time period. In-house use of physical items is included only when a library records it on a continuous basis.

The period used for measurement is fixed by the user of the indicator. This should be done in a way that reflects the mission and policies of the library. In general, a period of one year is the minimum appropriate.

B.2.1.3.4 Methods

B.2.1.3.4.1 Physical collections

a) Draw a random sample of items owned by the library. For each item in the sample, record whether that item has been borrowed during the specified time period, or otherwise registered as having been used in the library.

The Percentage of Stock Not Used is

$$\frac{C-A-B}{C}\times 100$$

where

- A is the number of items in the sample which have been borrowed;
- B is the number of items in the sample which have been registered as used in the library and not borrowed;
- C is the total number of items in the sample.

Round off to the nearest integer.

b) Using the records from a computerized issue system, count the number of items which have been on loan during the specified time period.

The Percentage of Stock Not Used is

$$\frac{B-A}{B}\times 100$$

where

- A is the number of items which have been on loan;
- B is the total number of items in the loan stock.

Round off to the nearest integer.

This second method overestimates the true rate, since it does not include data on items which have been used in the library, but not borrowed.

B.2.1.3.4.2 Electronic collections

Based on usage data, supplied by vendors or derived from your own systems, count the number of documents which are recorded as having been viewed or downloaded during the specified time period. Count the number of distinct titles, not the number of instances of use.

The Percentage of Stock Not Used is

$$\frac{B-A}{B}\times 100$$

where

A is the number of documents which have been viewed or downloaded;

B is the total number of items in the electronic collection.

Round off to the nearest integer.

This might overestimate the true rate, if there are documents in the collection for which no usage data are available. If possible, such documents should be excluded from the calculation of B, to provide a more accurate figure.

B.2.1.3.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100. It estimates the probability that a randomly selected document owned by the library has not been used during the specified time period. A high score means a low rate of use.

The indicator is affected by several factors, including:

— the mission of the library, for example whether the library has an archival mission or not;

— the promotional activities of the library;

— the acquisition and weeding policies and practices in the library.

B.2.1.3.6 Source(s)

See Reference [31] pp. 132 - 136.

B.2.1.3.7 Related indicator(s)

Collection Turnover [ISO 11620:2014, B.2.1.1].

B.2.1.4 Number of Content Units Downloaded per Capita

B.2.1.4.1 Objective

To assess whether users find items of interest in an electronic resource.

B.2.1.4.2 Scope

This performance indicator is applicable to all libraries.

B.2.1.4.3 Definition of the indicator

The number of content units downloaded in part or in whole from each electronic resource, divided by the population to be served during a specified time period.

Use of electronic resources by library staff and for user training is included in the count of content units downloaded.

The population to be served is the preferred measure; however, a specific target population can be substituted and specified when reporting.

B.2.1.4.4 Method

Count the number of content units downloaded from each electronic resource during a specified time period and divide that number by the number of population to be served by the same resource during that time period.

The Number of Content Units Downloaded per Capita is

$$\frac{A}{B}$$

where

A is the number of content units downloaded from a specified electronic resource during a specified time period;

B is the population to be served.

Round off to nearest integer, or to one decimal place if less than 10.

NOTE In some special cases, the library might wish to use a particular target population (e.g. faculty, senior level students) for this indicator.

B.2.1.4.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit. A high number is regarded as better than a low one.

The indicator can be affected by several factors, some outside the control of the library. Examples are: the level of users' skills, the level of network access, whether or not fees are charged for access or downloading, and the promotion of services.

The number of content units downloaded could be affected by the quality and efficiency of users' search strategies.

It is not recommended that the data should be used to obtain a global figure for all services, as services deliver different types of content units, e.g. some deliver full text, some citations.

B.2.1.4.6 Source(s)

See Reference[11] (adapted from PI 4).

B.2.1.4.7 Related indicator(s)

Cost per Download [ISO 11620:2014, B.3.1.3]; Number of Downloads per Document Digitized [ISO 11620:2014, B.2.1.5].

B.2.1.5 Number of Downloads per Document Digitized

B.2.1.5.1 Objective

To assess whether the library has digitized documents that are relevant for users.

B.2.1.5.2 Scope

The performance indicator is applicable to all libraries whose tasks include preserving and promoting the documentary heritage.

Comparing the results between libraries will be difficult, as the contents and therewith the attractiveness of digitized collections can differ considerably, but comparison over time will be important for each library.

B.2.1.5.3 Definition of the indicator

The number of downloads per document digitized out of the library's collection during a specified period.

For the purpose of this indicator, only those digitized documents that are available for public access are included.

B.2.1.5.4 Method

Establish the number of documents digitized out of the library's collection and that are available for public access. Count the number of downloads from these documents during a specified time period, normally a year.

The Number of Downloads per Document Digitized is

$$\frac{A}{B}$$

where

A is the number of downloads from documents digitized out of the library's collection during a specified time period;

B is the total number of documents digitized out of the library's collection.

Round off to the nearest integer.

The indicator can be presented by types of materials.

B.2.1.5.5 Interpretation and factors affecting the indicator

The indicator is a positive integer with no top limit.

A high number of downloads will be regarded as good. It shows that the library has digitized documents that are relevant for its population, for researchers, or the general public. If, however, downloading focuses on a limited number of documents in the digitized collection, the results can be misleading.

The indicator can be affected by several factors, some outside the control of the library, such as:

— the level of network access;

— whether or not fees are charged for access or downloading;

— the promotion of the services.

The number of downloads will also be affected by the quality and efficiency of users' search strategies.

B.2.1.5.6 Source(s)

See A.5.3 of Reference [5].

B.2.1.5.7 Related indicators

Number of Documents Digitized per 1 000 Documents in the Collection [ISO 11620:2014, B.1.1.4].

B.2.2 Access

B.2.2.1 Library Visits per Capita

B.2.2.1.1 Objective

To assess the library's success in attracting users of its services.

B.2.2.1.2 Scope

This performance indicator is applicable to all libraries with a defined population to be served.

Comparing libraries can be possible if differences in the mission of the library and socio-economic factors in the population are taken into account.

B.2.2.1.3 Definition of the indicator

The total number of visits to the library, either physical or virtual, during a full year divided by the total number of persons in the population to be served.

For the purpose of this indicator, a visit is the act of entering the library premises or accessing the library's website in order to use one of the services provided by the library.

B.2.2.1.4 Method

a) Use a turnstile or similar device to automatically count the number of people leaving or entering the library. Count either entries or exits, not both.

Count the number of virtual visits to the library's website.

The Library Visits per Capita is

$$\frac{A}{B}$$

where

A is the estimated total number of physical plus virtual library visits in a full year;

B is the number of persons in the population to be served.

Round off to the nearest integer, or to one decimal place if less than 10.

b) Count the number of persons entering or leaving the library during one or more sampling periods. Only count one entry or exit, not both. Calculate the virtual visits for the same sampling period. The number and length of the periods are selected by the user of the indicator. Estimate the total number of visits for one year by extrapolation, using available information about variations during the year.

NOTE Public libraries will typically use one period of one week; academic libraries, two or more periods reflecting the cycle of academic activities.

The Library Visits per Capita is

$$\frac{A}{B}$$

where

A is the total number of physical plus virtual (turnstile + *external* virtual visits) library visits in a full year;

B is the number of persons in the population to be served.

Round off to the nearest integer, or to one decimal place if less than 10.

NOTE For the calculation of virtual visits, see ISO 2789:2013.

B.2.2.1.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit. A high score is normally considered good.

If a turnstile is used, the count can be too high because staff and other nonusers are included, or because users have to exit and re-enter for a variety of reasons.

The capturing of virtual visits can depend on factors, such as the method of calculation and software used.

Where there is a substantial amount of seasonal variation, the count should be made for shorter periods of time during which use is more regular.

B.2.2.1.6 Source(s)

See the following references:

— Reference [8] pp. 29, 34 - 35;

— Reference[9] (PI 2.1);

— Reference [31] pp. 112 - 119.

B.2.2.1.7 Related indicator(s)

Cost per Library Visit [ISO 11620:2014, B.3.4.2].

B.2.2.2 Percentage of External Users

B.2.2.2.1 Objective

To assess the percentage of library users who do not belong to the library’s population to be served and thus, the library’s importance for learning and culture in the region and its impact and attraction outside its service area.

B.2.2.2.2 Scope

This performance indicator is applicable to all libraries serving external users.

B.2.2.2.3 Definition of the indicator

The percentage of external library users out of all library users.

In the sense of this indicator, an external user is defined as an external active borrower, a registered external user who has borrowed at least one item during the reporting period.

For institutions of higher education, this normally includes users who are not members of the academic and professional staff or students. For public libraries, this will normally be the population outside the legal service area (authority).

B.2.2.2.4 Method

Determine the number of external active borrowers and the total number of active borrowers at a specified point of time, usually at the end of the year.

The Percentage of External Users is

$$\frac{A}{B}\times 100$$

where

A is the number of external active borrowers;

B is the total number of active borrowers.

Round off to the nearest integer.

B.2.2.2.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

A higher score indicates the library's importance and attractiveness beyond its population to be served, and can reflect the relevance of the library's services to a broader population. Whether this is considered as good depends on the library's mission and goals.

The indicator could provide information on the weakness of library service in some areas and potential or required developments in other areas.

The indicator can also be used to estimate the library's workload in the area of external users.

B.2.2.2.6 Source(s)

See page 2 and Table 2 of Reference [15].

B.2.2.2.7 Related indicator(s)

Loans per Capita [ISO 11620:2014, B.2.1.2]; Percentage of the Target Population Reached [ISO 11620:2014, B.2.4.1]; Percentage of the Total Library Lending to External Users [ISO 11620:2014, B.2.2.3].

B.2.2.3 Percentage of the Total Library Lending to External Users

B.2.2.3.1 Objective

To assess the extent to which library loan services are used by external users and therewith to indicate the attractiveness of the library's collection to users outside the population to be served.

B.2.2.3.2 Scope

This performance indicator is applicable to all libraries that provide loan services to users outside the population to be served.

B.2.2.3.3 Definition of the indicator

The percentage of the library's total loans to non-members of the population to be served.

For institutions of higher education, this normally includes users who are not members of the academic and professional staff or students. For public libraries, this will normally be the population outside the legal service area (authority).

A loan is a direct lending or delivery transaction of an item in non-electronic form (e.g. book), or of an electronic document on a physical carrier (e.g. CD-ROM) or other device (e.g. eBook reader), or transmission of an electronic document to one user for a limited time period (e.g. eBook).

NOTE 1 Renewals are excluded, but could be counted separately.

NOTE 2 Loans include registered loans within the library (on-site loans).

NOTE 3 Loans include copied documents supplied in place of original documents (including fax) and printouts of electronic documents made by library staff for the user.

NOTE 4 Loans of documents in physical form to distance users are included.

NOTE 5 Mediated electronic transmission of documents is counted as electronic document delivery if their use is permitted for unlimited time. This includes transmissions to members of the population to be served.

B.2.2.3.4 Method

Count the number of loans to external users and the number of the library's total loans. The library system shall be able to count separately the numbers of loans to external users and loans to users in the population to be served.

The Percentage of the Total Library Lending to External Users is

$$\frac{A}{B}\times 100$$

where

A is the number of loans to external users;

B is the total number of loans.

Round off to the nearest integer.

B.2.2.3.5 Interpretation and factors affecting the indicator

The indicator is an integer in the range of 0 to 100. A high rate indicates that the library offers a high amount of services to users outside the population to be served. Whether this is considered as good will depend on the library's mission and goals.

The indicator will be affected by the extent to which the library's policy allows offering services to external users.

B.2.2.3.6 Source(s)

See Reference.[5]

B.2.2.3.7 Related indicator(s)

Loans per Capita [ISO 11620:2014, B.2.1.2].

B.2.2.4 User Attendances at Library Events per Capita

B.2.2.4.1 Objective

To estimate the attraction of library events for the library's population to be served.

B.2.2.4.2 Scope

This performance indicator is predominantly applicable to public libraries, but can also apply to other libraries that offer various events for their population to be served.

B.2.2.4.3 Definition of the indicator

The total number of attendances at the library's events during a full year per 1 000 members of the population. Events, in the sense of this indicator, include events with literary, cultural, or educational intent, e.g. author visits, reading groups, literary discussions, workshops, etc.

There can be different events for children, youths, and adults.

Only events arranged by the library are included.

Exhibitions are excluded.

Include events attended online (i.e. via webcast, webinar, or other technologies).

B.2.2.4.4 Method

Count the number of attendances at each library event and sum up for the year.

When the same person attends more than one event, he/she should be counted every time.

Determine the number of persons in the population to be served.

The User Attendances at Library Events per Capita is

$$\frac{A}{B} \times 1\,000$$

where

A is the number of attendances at the library events;

B is the number of persons in the population to be served.

Round off to the nearest integer.

The indicator could be used separately for events for adults, youths, or children, if the number of persons belonging to each group in the population to be served is known.

B.2.2.4.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit.

A high score indicates that the events that the library arranged were suited to the population to be served.

Attendants, not belonging to the population to be served, might be included in the counts.

B.2.2.4.6 Source(s)

See the following references:

— Reference[18] (PI 8);

— Reference [31] pp. 154 - 157.

B.2.2.4.7 Related indicator(s)

Number of User Attendances at Training Lessons per Capita [ISO 11620:2014, B.2.2.5].

B.2.2.5 Number of User Attendances at Training Lessons per Capita

B.2.2.5.1 Objective

To assess the success of the library in reaching its users through the provision of training lessons.

B.2.2.5.2 Scope

This performance indicator is applicable to all libraries with a defined population to be served.

B.2.2.5.3 Definition of the indicator

The number of user attendances at training lessons during a specified time period per 1 000 of the population to be served.

User training is defined as a training programme established by the library with a specified lesson plan, which aims at specific learning outcomes for the use of library and other information and technology services. User training can include tours of the library, technology training, or as a web-based service for users.

B.2.2.5.4 Method

Count the number of persons that attend library instruction (and, if applicable, tours of the library) during a specified time period (usually one year). These numbers should be cumulated at the end of the period. Count the number of sessions on the library's (interactive) online training modules during the same period. These numbers should also be cumulated at the end of the period. The sum of these numbers is used for the indicator.

The Number of User Attendances at Training Lessons per Capita is

$$\frac{A}{B} \times 1\,000$$

where

A is the number of attendances at library instructional sessions (and, if applicable, tours). This should include the number of sessions on the library's online training modules;

B is the population to be served.

Round off to thenearest integer.

NOTE In some special cases, the library might wish to use a particular target population (e.g. faculty, senior level students) for this indicator.

B.2.2.5.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. A higher number shows efficiency in reaching users by training lessons.

The indicator is affected by the amount of training provided by the library. The indicator does not allow evaluation of the quality of the training programme, nor assessment of the optimal expenditure on training activities.

B.2.2.5.6 Source(s)

See the following references:

— Reference[9] (PI 2.3);

— Reference [31] pp. 145 - 149.

B.2.2.5.7 Related indicator(s)

User Attendances at Library Events per Capita [ISO 11620:2014, B.2.2.4].

B.2.3 Facilities

B.2.3.1 User Places Occupancy Rate

B.2.3.1.1 Objective

To assess the overall use rate of user places provided for reading and working in the library, by estimating the proportion of the places in use at any given time.

B.2.3.1.2 Scope

This performance indicator is applicable to all libraries with reading and working facilities.

Measurement can be conducted at specified times of the day, the week, or the year, e.g. peak times or off-peak times. This should be stated explicitly when using the indicator.

B.2.3.1.3 Definition of the indicator

The percentage of user places in use at the time of investigation. User places reserved exclusively for the use of staff are not included.

User places in carrels, in seminar and study rooms and the audiovisual and children's departments of the library, and informal seating in lounges, and group areas are included.

Exclude places in halls and lecture and auditory theatres intended for audiences of special events. Also exclude floor space and cushions on which users can sit.

B.2.3.1.4 Method

Make a survey of user places provided for reading and working, whether with or without equipment at the time specified.

Count the number of user places in use.

The User Places Occupancy Rate is

$$\frac{A}{B} \times 100$$

where

A is the number of user places in use;

B is the total number of user places provided.

Round off to the nearest integer.

User places which show evidence of being used, such as coats, bags, notebooks, etc. deposited at the places, are counted as being in use, even if the user is absent. Due to the inherent variability of the indicator, a more accurate indicator can be attained by measuring the user places occupancy rate at random intervals over a period of time and then calculating the mean occupancy rate (using the cumulated sum of the user places in use, divided by the cumulated sum of the user places provided, times 100).

B.2.3.1.5 Interpretation and factors affecting the indicator

The indicator is an integer in the range 0 to 100. It estimates the probability that a randomly selected place is in use at any time, or at the times specified.

B.2.3.1.6 Source(s)

See Reference [34] pp.82 - 88 (a special case of "Facilities Use Rate").

B.2.4 General

B.2.4.1 Percentage of the Target Population Reached

B.2.4.1.1 Objective

To assess the success of the library in reaching a target population.

NOTE The target population can be the population to be served by the library, a specific group within that population (for example, with needs that require special library services), or some other group that the library is aiming to serve.

B.2.4.1.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for comparing libraries aiming to serve similar target populations, provided that the same method is used for calculating the indicator.

B.2.4.1.3 Definition of the indicator

The percentage of the target population using library services.

A *user* can, for the purpose of this indicator, be an individual or a corporate body (an organization, institution, or company).

B.2.4.1.4 Method

a) Draw a random sample from the target population. Ask each person in the sample whether they have visited the library, or used the services of the library in other ways, during the last year.

The Percentage of the Target Population Reached is

$$\frac{A}{B}\times 100$$

where

A is the number of persons answering “Yes”;

B is the total number of persons answering.

Round off to the nearest integer.

b) Using the records of the computerized issue system, count the number of users (belonging to the target population) who borrowed documents within the last year.

Estimate the number of persons in the target population.

The Percentage of the Target Population Reached is

$$\frac{A}{B}\times 100$$

where

A is the number of active borrowers belonging to the target population;

B is the total number of persons in the target population.

Round off to the nearest integer.

Since not all uses by an individual are taken into account, this method can result in a score that is lower than the true percentage.

B.2.4.1.5 Interpretation and factors affecting the indicator

The indicator is an integer in the range of 0 to 100. A higher score is normally considered better than a lower score, but a relatively low score can be considered satisfactory from the point of view of a specific library, e.g. with a specific type of target population.

The proportion of the target population using the library can be affected by several factors, many outside the influence of the library. Examples are demographic composition of the target population, level of urbanization, level of education, characteristics of institutions served (e.g. teaching methods, level of financial support to students), book-buying habits, geographical distances between libraries and users, general social conditions, economic climate, etc.

The score ought to be sensitive to active promotion of the library services, as well as improvement of the services provided.

B.2.4.1.6 Source(s)

See the following references:

— Reference[9] (PI 2.1);

— Reference [25] p. 35 ("Percentage of the Population who have Books on Loan", using loans as an estimate of the percentage of the population who has used the library.);

— Reference [31] pp. 100 - 104 ("Market Penetration");

— Reference [33] pp. 41 - 42 ("Registrations as Percentage of Population");

— Reference [35] pp. 88 - 90.

B.2.4.1.7 Related indicator(s)

Library Visits per Capita [ISO 11620:2014, B.2.2.1].

B.2.4.2 User Satisfaction

B.2.4.2.1 Objective

To assess the degree to which users are satisfied with the library services as a whole or with different services of the library.

B.2.4.2.2 Scope

This performance indicator is applicable to all libraries.

Comparing the same library at different points in time is possible. Comparing different libraries is, in general, very difficult, and only valid if the circumstances, questions, and procedures are identical. There are a number of user satisfaction surveys available, for both public and academic libraries, which can be used for comparison between libraries of similar mission when the same questionnaire and survey processes are used.

The indicator can be used to assess the satisfaction of specific user categories, e.g. undergraduates, faculty members, or elderly people.

The indicator can be used for measuring users' perceptions of any of the public services of a library. For example:

— opening hours;

— study facilities;

— availability of documents;

— interlibrary lending service;

— inquiry and reference service;

— user training;

— attitudes of library staff;

— library service as a whole.

Different aspects of individual services can also be assessed within the same survey.

B.2.4.2.3 Definition of the indicator

The average rating by users of the library services as a whole or of different services of the library. The rating should be on a numeric scale, either:

— a four-point scale, from 1 to 4 with 1 as the lowest value,

— a five-point scale, from 1 to 5 with 1 as the lowest value, or

— a seven-point scale, from 1 to 7 with 1 as the lowest value.

B.2.4.2.4 Method

There are various and competing measurement approaches for user satisfaction. The most used method is the direct measurement method, where users rate the services and their attributes by their satisfaction and by the importance of the services to them on different scales. Another well-known approach in the library sector is the expectancy-disconfirmation paradigm in different variants. Users compare the actual product and service performance with their prior expectations. In cases where user expectations are met or even exceeded, the user is satisfied. This approach is also called gap analysis.

a) Direct measurement method

Design a simple questionnaire listing the specific services, and/or aspects of services, which are to be assessed. A four-, five-, or seven-point scale is generally provided for answering the questions. The same scale should be used throughout the questionnaire.

Questions about user status can also be included in the questionnaire. Different categories of users have different needs, so the data can be analysed to identify how satisfaction is related to these variables.

Draw a random sample of users and ask them to fill out the questionnaire. The data can be collected by a postal questionnaire, by an electronic questionnaire, by face to face interview, or by telephone interview, as appropriate.

The average User Satisfaction for each service or aspect of service is

$$\frac{A}{B}$$

where

A is the sum of the values for each service indicated by the users;

B is the number of persons answering the questions.

Round off to one decimal place.

This indicator is calculated and reported separately for each question in the survey. For each service, also count the frequency with which each value appears. Then calculate the percentage for each value. This additional analysis shows how the users' perceptions are distributed across the range of possibilities.

A specific selection of questions in the survey can be used to identify specific sources of dissatisfaction, and to identify the relative importance of various services.

b) Gap analysis method

Gap analysis can be used for calculating user satisfaction as defined by this indicator, if questions are posed appropriately. The method provides additional information about customer expectations which is not used for the calculation of this indicator.

Design a questionnaire listing the specific services, and/or aspects of services, which are to be assessed. Include questions asking users to rate the service they currently receive. A four-, five-, or seven-point scale is generally provided for answering the questions. The same scale should be used throughout the questionnaire.

Questions about user status can also be included in the questionnaire. Different categories of users have different needs, so the data can be analysed to identify how satisfaction is related to these variables.

Draw a random sample of users and ask them to fill out the questionnaire. The data can be collected by a postal questionnaire, electronic questionnaire, face to face interview, or telephone interview, as appropriate.

The average User Satisfaction for each service or aspect of service is

$$\frac{A}{B}$$

where

A is the sum of the values for each service as currently received by the users;

B is the number of persons answering the questions.

Round off to one decimal place.

This indicator is calculated and reported separately for each question in the survey. For each service, also count the frequency with which each value appears. Then calculate the percentage for each value. This additional analysis shows how the users' perceptions are distributed across the range of possibilities.

A specific selection of questions in the survey can be used to identify specific sources of dissatisfaction, and to identify the relative importance of various services. Questions relating to users' expectations of the various services can be used to identify those where there is the greatest discrepancy between expectation and experience.

B.2.4.2.5 Interpretation and factors affecting the indicator

For each service or aspect of a service, this indicator is a number with one decimal place between 1 and 4, 1 and 5, or 1 and 7, depending on the scale chosen.

Users' opinions are very subjective, and depend on individual circumstances at the time of the survey. An important factor is the expectation of the users. If they have not had experience of high quality services, they can be satisfied with lower quality, which is one reason why it is difficult to compare one library with another.

B.2.4.2.6 Source(s)

See the following references:

— Reference;[14]

— Reference [22] pp. 118 - 122;

— Reference [31] pp. 105 - 111;

— Reference [34] pp. 43 - 53.

B.2.4.3 Willingness to Return

B.2.4.3.1 Objective

To assess the effectiveness of a reference transaction by the user's willingness to return to the reference desk (or to a virtual reference service).

B.2.4.3.2 Scope

The indicator is relevant for all libraries with a reference service.

Comparison is possible between libraries of similar mission and goals if a similar type of reference service is provided.

The indicator is applicable for traditional face-to-face reference and for virtual reference.

B.2.4.3.3 Definition of the indicator

The percentage of reference transactions after which users state that they are willing to return to the reference desk (to the virtual reference service) with another question.

NOTE 1 Reference questions can regard facts, documents, or advice on sources for the user's subject.

NOTE 2 The definition excludes informational questions (directional and administrative inquiries).

NOTE 3 Virtual reference questions can be delivered by e-mail or web forms.

This indicator does not assess the speed of the reference transaction or the accuracy of the reference answers.

B.2.4.3.4 Method

a) Actual reference users

Actual users are questioned after a reference interview in a follow-up interview or survey. After a reference transaction in a virtual reference service, a web survey is offered. Users answer the question as to their willingness to return:

— Based on the experience of this reference transaction, if you had the option, would you return to this reference desk (this virtual reference service) again with another question?

The Willingness to Return is

$$\frac{A}{B}\times 100$$

where

A is the number of persons answering “Yes”;

B is the total number of persons answering.

Round off to the nearest integer.

b) Proxy user method

Proxy or surrogate users ask a reference question at the reference desk (in the virtual reference service). They observe staff behaviour and all circumstances related to the reference transaction.

After the reference transaction, the proxy users answer the question as to their willingness to return:

— Based on the experience of this reference transaction, if you had the option, would you return to this reference desk (this virtual reference service) again with another question?

The Willingness to Return is

$$\frac{A}{B}\times 100$$

where

A is the number of persons answering “Yes”;

B is the total number of persons answering.

Round off to the nearest integer.

In order to know more about the reasons of willingness or non-willingness to return, libraries could ask more questions such as:

— Was the reference librarian (the virtual service) easily approachable?

— Did the reference librarian show competence?

— Did the reference librarian ask at least one question to find out more about your information need?

— If you were referred to a source, either inside or outside of the library, did the librarian check whether you got a helpful answer?

— Did the librarian finally ask you whether the information provided fully met your information needs?

B.2.4.3.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

A high score is considered good. It means that a high percentage of reference transactions were successful according to the rating of actual or proxy users.

If the score is low, the library can identify the reasons via the aspects rated by the users. One reaction could be to organize staff training in interpersonal skills.

B.2.4.3.6 Source(s)

See Reference[17] and Reference.[28]

B.3 Efficiency

B.3.1 Collection

B.3.1.1 Cost per Collection Use

B.3.1.1.1 Objective

The indicator assesses the library costs per collection use and therewith the cost-efficiency of library services.

B.3.1.1.2 Scope

The indicator is relevant for all libraries with both a physical and an electronic collection.

Comparison between libraries of similar mission, structure, and population to be served is possible, if differences in the collections and in lending policies are considered and if the recurrent expenditure is calculated in the same way.

B.3.1.1.3 Definition of the indicator

The total recurrent expenditure of the library in a full financial year divided by the total number of instances of collection use (loans plus downloads plus in-house use) in the same period.

The total recurrent expenditure is the sum of expenditures for

a) acquisitions of library materials of all formats (including binding, licenses, and pay-per-view costs),

b) staff (including project staff, student assistants, etc.) and staff training, and

c) all other purposes: operations and maintenance of computers and network, software licenses and telecommunication, rent and maintenance of premises, utility costs (heat, electricity, water, sewage), repair or replacement of existing furnishings and equipment, and other costs such as cataloguing records, copying, postage, promotion of services, stationery, insurance, transport and communications, consulting, etc.

Capital expenditure (on acquisition of, or addition to, building sites, new buildings, and extensions, on computer systems, furniture, and equipment) is excluded.

A loan is a direct lending or delivery transaction of an item in non-electronic form (e.g. book), or of an electronic document on a physical carrier (e.g. CD-ROM) or other device (e.g. eBook reader), or transmission of an electronic document to one user for a limited time period (e.g. eBook).

NOTE 1 Renewals are excluded, but could be counted separately.

NOTE 2 Loans include registered loans within the library (on-site loans).

NOTE 3 Loans include copied documents supplied in place of original documents (including fax) and printouts of electronic documents made by library staff for the user.

NOTE 4 Loans of documents in physical form to distance users are included.

NOTE 5 Mediated electronic transmission of documents is counted as electronic document delivery if their use is permitted for unlimited time. This includes transmissions to members of the population to be served.

Renewals are excluded, but could be counted separately. It is important that the inclusions and exclusions are described when the performance indicator is used for comparing libraries.

In-house use in the sense of this indicator means a document taken by a user from open access stock for use on the premises.

A download in the sense of this indicator is the successful request of a content unit (a document or part of a document) from the library's electronic collection.

B.3.1.1.4 Method

Calculate the total recurrent expenditure for one financial year, using accounts data. To get an estimate for the current year, data from the budget can be used instead.

The Cost per Collection Use is

$$\frac{A}{B}$$

where

A is the total recurrent expenditure for one financial year, expressed in the relevant currency;

B is the total number of collection use (loans + downloads + in-house use) in the same period.

Round off in the manner customary with the currency used.

B.3.1.1.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. The normal range will depend on the type of library and the currency used.

The indicator establishes a relation between the number of loans + downloads + in-house use and the cost of providing all the services of the library, but cannot, in the normal case, be interpreted as an estimate of the average cost of a loan, download transaction, or in-house use. Especially in libraries where loans are the dominant service, the indicator can be used to assess the overall efficiency of the service.

It should be kept in mind that loans and in-house use of physical materials and downloads from the electronic collection are quite different ways of collection use. However, as electronic media are increasingly replacing print media, both types of collection use together should be compared to the library costs when assessing the efficiency of the library's services.

The indicator can be influenced by other libraries nearby supplying services to the library's population to be served and by fees for library use.

This indicator should not be used by itself. It is useful for placing the service indicators in a more general context.

B.3.1.1.6 Source(s)

See Reference [22] pp. 50 - 51 (“Cost per use”, using an estimate of the actual cost of the circulation service) and Reference [31] Indicator C.3.

B.3.1.1.7 Related indicators

Acquisition Cost per Collection Use [ISO 11620:2014, B.3.1.2]; Cost per User [ISO 11620:2014, B.3.4.1]; Cost per Library Visit [ISO 11620:2014, B.3.4.2].

B.3.1.2 Acquisition Cost per Collection Use

B.3.1.2.1 Objective

The indicator assesses the library’s acquisition cost per collection use and therewith the effectiveness and user-orientation of the library’s collection building policy.

B.3.1.2.2 Scope

The indicator is relevant for all libraries with both a physical and an electronic collection.

The indicator can be used for comparing the cost of one instance of use in the same library over time.

Comparison between libraries of similar mission, structure, and population to be served is possible, if differences in the collections and in lending policies are considered and if the acquisitions expenditure is calculated in the same way.

B.3.1.2.3 Definition of the indicator

The acquisitions expenditure of the library in a full financial year for library materials of all formats divided by the total number of instances of collection use (loans plus downloads plus in-house use) in the same period.

NOTE This includes binding, licenses, and pay-per-view costs.

A loan is a direct lending or delivery transaction of an item in non-electronic form (e.g. book), or of an electronic document on a physical carrier (e.g. CD-ROM) or other device (e.g. eBook reader), or transmission of an electronic document to one user for a limited time period (e.g. eBook).

NOTE 1 Renewals are excluded, but could be counted separately.

NOTE 2 Loans include registered loans within the library (on-site loans).

NOTE 3 Loans include copied documents supplied in place of original documents (including fax) and printouts of electronic documents made by library staff for the user.

NOTE 4 Loans of documents in physical form to distance users are included.

NOTE 5 Mediated electronic transmission of documents is counted as electronic document delivery if their use is permitted for unlimited time. This includes transmissions to members of the population to be served.

Loans in the sense of this indicator are lending transactions of physical items to one user. This includes on-site loans (loans within the library), copies supplied in place of original documents, and outgoing interlibrary loans. Renewals and incoming interlibrary loans are excluded.

It is important that the inclusions and exclusions are described when the performance indicator is used for comparing libraries.

In-house use in the sense of this indicator means a document taken by a user from open access stock for use on the premises.

A download in the sense of this indicator is the successful request of a content unit (a document or part of a document) from the library's electronic collection.

B.3.1.2.4 Method

Calculate the acquisitions expenditure of the library for one financial year.

The Acquisition Cost per Collection Use is

$$\frac{A}{B}$$

where

A is the total acquisitions expenditure for one financial year, expressed in the relevant currency;

B is the total number of instances of collection use (loans + downloads + in-house use) in the same period.

Round off in the manner customary with the currency used.

B.3.1.2.5 Interpretation and factors affecting the indicator

The performance indicator is a real number with no top limit. The normal range will depend on the type of library and the currency used.

The indicator establishes a relation between the number of loans + downloads + in-house use and the cost of the physical + electronic collection.

A lower value indicates cost-efficiency for the collection. It shows that the library has adapted its collection policy to the needs of its population to be served.

It should be kept in mind that loans and in-house use of physical materials and downloads from the electronic collection are quite different ways of collection use. However, as electronic media are increasingly replacing print media, the total usage of the collection should be compared to the library's acquisition costs when assessing the adequacy and user-orientation of the library's collection policy.

The indicator can be influenced by other libraries nearby supplying services to the library's population to be served and by fees for library use.

B.3.1.2.6 Source(s)

See Reference [31] Indicator C.3.

B.3.1.2.7 Related indicators

Cost per Collection Use [ISO 11620:2014, B.3.1.1]; Cost per User [ISO 11620:2014, B.3.4.1]; Cost per Library Visit [ISO 11620:2014, B.3.4.2].

B.3.1.3 Cost per Download

B.3.1.3.1 Objective

To assess the cost of a specified electronic resource related to the number of downloads from this resource.

B.3.1.3.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for comparisons over time to other electronic resources or the same resource in another library if differences in collection policies and socio-economic factors in the population are taken into account. The performance indicator only applies to priced electronic resources.

B.3.1.3.3 Definition of the indicator

The costs of each electronic resource divided by the number of downloads from that electronic resource during a specified period.

The cost of an electronic resource is the acquisitions, subscription, or licensing cost paid by the library for that resource. “Pay per download” costs are not included in this definition as the costs per download are evident.

A download in the sense of this indicator is a successful request of a content unit.

A content unit in the sense of this indicator is a computer-processed uniquely identifiable textual or audio-visual piece of published work that can be original or a digest of other published work. This includes documents or parts of documents (e.g. articles, abstracts, content tables, images) and descriptive records.

B.3.1.3.4 Method

For each electronic resource, the cost during a specific period (usually a full financial year) is divided by the number of downloads during that period. If the time periods between costs and downloads measured differ, they should be normalized.

Downloading by library staff and in user training should be included in the number of downloads.

Electronic versions of resources acquired in a package with print versions should be excluded if costs cannot be clearly separated. The costs of resources acquired by bulk purchase should be allocated pro rata.

The Cost per Download is

$$\frac{A}{B}$$

where

A is the cost of each electronic resource for a specified period;

B is the number of downloads from each electronic resource during the same period.

Round off in the manner customary with the currency used.

B.3.1.3.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. The normal range will depend on the currency used.

A lower value indicates cost efficiency for electronic resources. This should, however, be considered in conjunction with the demand for the resource, especially with the number of sessions.

Depending on the users’ browser cache configurations and use of proxy servers, the number of downloads indicated by server statistics will usually be lower than the real number.

The indicator should not be used by itself, but in conjunction with user satisfaction surveys.

Interpretation of the results is dependent on local factors such as negotiated licensing agreements, service contracts, etc.

B.3.1.3.6 Source(s)

See Reference[11] (PI 6).

B.3.1.3.7 Related indicator(s)

Acquisition Cost per Collection Use [ISO 11620:2014, B.3.1.2].

B.3.2 Access

B.3.2.1 Median Time of Document Acquisition

B.3.2.1.1 Objective

To assess the degree to which suppliers of library materials are effective, in terms of speed.

B.3.2.1.2 Scope

This performance indicator is applicable to all libraries. The indicator is especially useful for monograph (print and electronic) acquisition.

Comparing suppliers can be possible.

B.3.2.1.3 Definition of the indicator

Median number of days between the date of requesting a document and the date it arrives at the library or is accessible. Exclude documents acquired by gift or exchange, and documents ordered or requested before publication.

B.3.2.1.4 Methods

a) For libraries with a computerized acquisition system: All monographs recently ordered or received by the library are checked in the order file as to

   — day of ordering or requesting,

   — day of receipt or day of access, and

   — supplier's name (if the library uses different suppliers).

For each title, calculate the number of days between ordering or requesting and receipt or access. Rank the titles according to the number of days elapsed.

The Median Time of Document Acquisition is the number of days that is in the middle of the ranking list.

NOTE Documents which have not yet been received or made accessible are left out of the calculation, since no finishing time can be assigned to an incomplete transaction.

If the number of titles is even, the Median Time of Document Acquisition is

$$\frac{A+B}{2}$$

where

A and B are the two values in the middle of the ranking list.

Round off to the nearest integer.

b) For libraries without a computerized acquisition system: Draw a random sample of monographs in different subjects. If the library uses a number of suppliers, make sure that different suppliers are represented in the sample.

Proceed as in method a).

The results can be analysed by supplier and by subject.

B.3.2.1.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit.

The indicator could point to failures in vendor performance (the publishers as well as the vendors) and inefficient library claiming procedures.

Management decisions based on the results could lead to

— online ordering;

— approval plans;

— improved claiming of overdue orders;

— change of vendors;

— improved vendor performance (if they are informed of the results).

B.3.2.1.6 Source(s)

See the following references:

— Reference;[7]

— Reference;[24]

— Reference;[29]

— Reference [31] pp. 189 - 192 ("Acquisition Speed").

B.3.2.1.7 Related indicator(s)

Median Time of Document Processing [ISO 11620:2014, B.3.2.2].

B.3.2.2 Median Time of Document Processing

B.3.2.2.1 Objective

To assess whether the different forms of processing procedures are effective as to speed.

B.3.2.2.2 Scope

This performance indicator is applicable to all libraries. The indicator is especially useful for monographs (print and electronic). It can be applied to different types of documents or different subjects.

Comparisons between libraries are possible, but only if differences in mission affecting the level of descriptive cataloguing, subject cataloguing, binding policies, etc. are taken into account. When interpreting the results, differences in computerization and the use of copy cataloguing should be given special attention.

B.3.2.2.3 Definition of the indicator

Median number of days between the day a document arrives at the library and the day it is available for the user.

B.3.2.2.4 Methods

The period used for measurement (e.g. one month) is fixed by the user of the indicator. Collect data on documents arriving in the library during the specified period. Keep a log, either by a computerized library system or by a log sheet accompanying the document through the process.

For each title record, the exact dates of all stages of document processing should be logged:

— receipt or access (for library staff), including administrative process;

— cataloguing/metadata tags;

— subject cataloguing/metadata tags;

— bindery preparation;

— binding;

— shelving.

For electronic documents, the end of processing will either coincide with cataloguing, when the URL for a document on an external server has been added, or with the installation of the document on the library's server and the URL being added in the catalogue.

For each title, calculate the number of days between arrival and availability or accessibility. Rank the titles according to the number of days elapsed.

The Median Time of Document Processing is the number of days that is in the middle of the ranking list.

NOTE Documents for which processing has not been completed are left out of the calculation, since no finishing time can be assigned to an incomplete process.

If the number of titles is even, the Median Time of Document Processing is

$$\frac{A+B}{2}$$

where

A and B are the two values in the middle of the ranking list.

Special processing procedures for different documents (e.g. rush procedures, rare documents, gift and exchange documents) should be analysed separately. The median time of each stage of processing can be calculated in the same way.

The processing speed for electronic media should be assessed separately.

B.3.2.2.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit.

Where data for all stages of processing have been collected, the indicator could point to

— failures in the sequence of procedures,

— delays due to stockpiling (backlogs), and

— delays due to overload.

Possible management decisions based on the results could be

— streamlining the process,

— forwarding documents at shorter intervals to the next department, and

— additional assignment of staff.

B.3.2.2.6 Source(s)

See Reference [31] pp. 193 - 198 (“Media Processing Speed”).

B.3.2.2.7 Related indicator(s)

Median Time of Document Acquisition [ISO 11620:2014, B.3.2.1].

B.3.3 Staff

B.3.3.1 User Services Staff as a Percentage of Total Staff

B.3.3.1.1 Objective

To determine the library’s effort devoted to public services in relation to the background services.

B.3.3.1.2 Scope

This performance indicator is applicable to all libraries.

This performance indicator can be used for comparing libraries with the same mission and population to be served, provided that the same method of measurement of staff positions has been used.

B.3.3.1.3 Definition of the indicator

The number of full-time equivalent staff directly serving users expressed as a percentage of the number of full-time equivalent staff of the library.

User services includes the following functions: lending, Reference interlibrary lending, user education, photocopying, shelving, and retrieving items.

B.3.3.1.4 Method

For a given budget period, determine the number of full-time equivalent positions directly assigned to user services.

Use the number of full-time equivalent (FTE) employee positions, including an estimate of the proportion of time spent on user services by dual-responsibility staff.

NOTE If the library does not keep detailed records of time spent on various activities, this proportion can be calculated accurately through an occasional special survey.

Calculate the number of full-time employees on the basis of staff records. Full-time employees who have worked for a full year count as one. Full-time employees who have worked for part of the year are each counted as the proportion of the year that they have worked (expressed as a decimal number with two decimal places). Part-time employees are each counted by multiplying the fraction of time assigned by the fraction of the year worked (both expressed as decimal numbers with two decimal places).

In case any of the above responsibilities have been out-sourced to an external institution (in return for payment or not), this indicator should only be applied if the external workload can be quantified accordingly (i.e. as FTE). This amount should be added to both *A* and *B* in the formula.

Exclude janitorial and building maintenance staff from the calculations.

The User Services Staff as a Percentage of Total Staff is

$$\frac{A}{B}\times 100$$

where

A is the number of full-time equivalent (FTE) employees assigned to user services;

B is the total number of full-time equivalent (FTE) employees.

Round off to the nearest integer.

B.3.3.1.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

This indicator should be used in conjunction with indicators of quality.

The indicator is affected by the following:

— mission of the library;

— population to be served (e.g. adults, children);

— number of service points;

— opening hours;

— proportion of stock in open access;

— scope and variety of services offered;

— support by the automated system and other technical services.

B.3.3.1.6 Source(s)

See Reference [32] p. 19 (“qualified staff assigned to reference”, “size of staff”).

B.3.3.2 Correct Answer Fill Rate

B.3.3.2.1 Objective

To assess to what extent the staff are able to fulfil the primary requirement for a good reference service, namely to provide correct answers to questions.

B.3.3.2.2 Scope

This performance indicator is applicable to all libraries. As the methodology is fairly complex and requires specific expertise, it is used mostly in larger public or academic libraries or library systems.

B.3.3.2.3 Definition of the indicator

The number of reference questions answered correctly divided by the total number of reference questions handled.

B.3.3.2.4 Method

Of the various methods used, the unobtrusive test has been most extensively applied and described. It involves compiling a representative set of questions with their answers. These are then used by proxy users or surrogates to be put to the staff involved in the information service as genuine questions, without the staff being aware that they are being tested. This has the advantage of the service being evaluated under normal conditions. Unobtrusive testing can be used across reference services, e.g. face-to-face, telephone, e-mail, or online. It might be easier to let proxy users put their questions in electronic form. Libraries that make use of digital reference services will want to include those transactions in the calculation of this indicator.

To obtain valid results

— the questions used should be chosen with great care,

— the proxy users should be chosen to represent the actual user group, and

— the proxy users have to be properly coached on the way in which they should conduct themselves.

NOTE 1 In many cases, it might be difficult to determine the “correct” answer to a question. This will affect the reliability and practicality of this indicator.

NOTE 2 Increasingly, libraries participate in consortia/collaborative arrangements for digital reference services. In such cases, the library might need to extract only questions and answers that the library’s staff fielded and answered.

The Correct Answer Fill Rate is

$$\frac{A}{B}\times 100$$

where

A is the number of questions answered correctly;

B is the total number of questions handled.

Round off to the nearest integer.

B.3.3.2.5 Interpretation and factors affecting the indicator

The indicator is an integer in the range of 0 to 100.

It should always be borne in mind that this indicator focuses on one aspect of the effectiveness of the reference service only. The results can be influenced by, for example, the choice of questions, the staff's communication skills and the quality, variety, and accessibility of reference works and databases, and the implementation of the reference service (i.e. digital reference).

The value of the test results can be enhanced by designing the test in such a way that the factors contributing to poor performance or the reasons for failure can be established, or by combining it with other forms of data collection. This could include information on procedures which the staff followed to clarify questions (communication skills), whether details of the source were provided with the answer, if, when no answer could be found, the user was referred elsewhere, and what the attitude of the staff was.

Additionally, in the context of an online reference service, the indicator can provide more useful information about procedures followed by staff and data resources used.

The performance of the reference staff, in respect of correctness, is affected by competing goals of teaching the user how to use the reference sources and of answering the query as quickly as possible.

The level of difficulty of the questions is also relevant. Note that some questions will have alternative answers, or answers which give a choice to the enquirer.

B.3.3.2.6 Source(s)

See Reference[19] and Reference [31] pp. 213 - 225 ("Reference Fill Rate").

B.3.3.3 Ratio of Acquisition Expenditures to Staff Costs

B.3.3.3.1 Objective

To relate acquisition costs to staff costs in order to assess whether the library invests a relevant part of its income in the collection.

B.3.3.3.2 Scope

The performance indicator is applicable to all libraries. The indicator is most informative for libraries that have flexible or global budgets and that can shift resources between staff and collection expenditure.

This performance indicator can be used for comparisons over time or to other libraries if differences in collection policies and the library's mission are taken into account.

B.3.3.3.3 Definition of the indicator

The acquisition costs (including binding, licenses, and pay-per-view) are divided by the expenditure on regular staff (staff in the position chart).

B.3.3.3.4 Method

For a given budget period, determine the library's acquisition, subscription, and licensing expenditures (including binding and pay-per-view). If the library joins in consortia or other over-all contracts, only the library's own share in the contractual expenses should be counted.

For the same period, identify the staff costs for regular staff (staff in the position chart). Staff paid by special grants and student assistants are excluded. Staff costs include total amount of money spent on salaries and wages, allowances and other employee benefits, and other related expenditure; costs of formal pre-planned staff training, including training materials and fees for external experts.

If the actual expenditure cannot be calculated, average rates can be used. Lists of average rates for each level of the position chart, published by governmental departments, are available in many countries.

The Ratio of Acquisition Expenditure to Staff Costs is

$$\frac{A}{B}$$

where

A is the expenditure on acquisition;

B is the staff costs.

B.3.3.3.5 Interpretation and factors affecting the indicator

The indicator is a positive real number with no top limit.

A higher score is usually considered as good. It will inform the library whether its processes are organized efficiently in order to invest a relevant part of its income in the collection.

The indicator will be influenced by external means (e.g. special grants) for consortia, cuts in collection building funds, or special subject collections. The indicator shall be judged against mission and objective of the library. Collection policies, the subjects collected by the libraries, and staff intensive services can greatly influence the score.

B.3.3.3.6 Source(s)

See Reference [9] adapted from PI 3.2, and Reference [31] pp. 175 - 179 (“Ratio of Acquisitions Costs to Staff Costs”).

B.3.3.4 Employee Productivity in Media Processing

B.3.3.4.1 Objective

To measure the average number of acquired media (print and electronic documents) processed per employee in a certain period (usually one year). The indicator exemplarily demonstrates employee productivity.

B.3.3.4.2 Scope

This performance indicator is applicable to all libraries.

Performance indicator can be used for comparisons over time or to other libraries if differences in the acquired media and in the workflow and the methods of media processing are taken into account.

The indicator does not measure the quality (speed and accuracy) of the processing activities.

B.3.3.4.3 Definition of the indicator

To measure employee productivity in media processing, the total number of acquired media is divided by the number of full-time equivalent (FTE) employees involved in media processing (acquisition and cataloguing, no retrospective cataloguing).

B.3.3.4.4 Method

Count the number of print and electronic documents acquired in a certain period (usually one year). For electronic periodicals and newspapers, an annual subscription is counted as one volume.

Obtain the FTE of staff involved in acquisition and cataloguing (including the acquisition and cataloguing of periodicals, but excluding retrospective cataloguing). Consider temporary and permanent staff, as well as project staff. Because employees are sometimes involved in several tasks, the time they spend on each task should be logged during a representative period. Thus, the proportion of time that every employee dedicates to media processing can be calculated. If time logging is not possible, this proportion can instead be estimated.

To calculate the FTE for part-time employees:

— annual employment: weekly working hours divided by the regular working hours per week;

— non-annual employment: weekly working hours divided by the regular working hours per week and then multiplied with the quotient (number of weeks employed/52).

The Employee Productivity in Media Processing is

$$\frac{A}{B}$$

where

A is the number of media acquired in a certain period;

B is the FTE of staff involved in media processing.

Round off to the nearest integer.

B.3.3.4.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit.

A higher score will usually be considered as good.

The indicator will be influenced by the type of media to be processed, the methods of media processing, and the possibility of copy cataloguing.

This indicator should not be applied in cases where the above responsibilities have been outsourced (e.g. by buying cataloguing data).

B.3.3.4.6 Source(s)

See Reference[9] (PI 3.3) and Reference [31] pp. 199 - 201.

B.3.3.4.7 Related indicator(s)

Employee Productivity in Lending and Delivery Services [ISO 11620:2014, B.3.3.5].

B.3.3.5 Employee Productivity in Lending and Delivery Services

B.3.3.5.1 Objective

To assess the efficiency of the library's lending and delivery services.

B.3.3.5.2 Scope

The indicator is relevant for all libraries with lending and delivery services.

Comparison between libraries will be possible, if the different percentages of types of loan and delivery and differences in the degree of automation are considered.

The indicator does not measure the quality (speed and accuracy) of the service delivery.

B.3.3.5.3 Definition of the indicator

The total number of loan transactions during one year divided by the number of full-time equivalent (FTE) employees involved in local lending, interlibrary lending, and document delivery, including staff retrieving items from the shelves and photocopying/scanning for delivery.

Loans for the purpose of this indicator include:

— local loans, including in-house loans;

— interlibrary loans;

— document delivery transactions.

Renewals are excluded.

B.3.3.5.4 Method

Count the number of local loans (including in-house loans), interlibrary loans, and document deliveries during one year.

Calculate the FTE of staff involved in local lending, interlibrary lending, and document delivery, including staff retrieving items from the shelves and photocopying/scanning for delivery. Include temporary and permanent staff, as well as project staff.

Because employees are sometimes involved in several tasks, the time they spend on each task should be logged during a representative period. Thus, the proportion of time that every employee dedicates to local lending, interlibrary lending, and document delivery can be calculated. If time logging is not possible, this proportion can instead be estimated.

The Employee Productivity in Lending and Delivery Services is

$$\frac{A}{B}$$

where

A is the number of local loans, interlibrary loans, and document deliveries during one year;

B is the number in FTE of staff involved in lending and delivery services.

Round off to the nearest integer.

The indicator can be used separately for lending and for interlibrary lending and document delivery.

B.3.3.5.5 Interpretation and factors affecting the indicator

The indicator is an integer with no top limit.

A higher score will usually be considered good.

The indicator will be influenced by the types of media to be delivered, the percentage of the different types of loan and delivery, the grade of automation, and the organization of the workflow.

If the employee productivity seems too low, the library could try to

— revise workflows,

— use more automated procedures, or

— intensify staff training.

B.3.3.5.6 Source(s)

See A.9.4 of Reference [20].

B.3.3.5.7 Related indicators

Staff Costs per Title Catalogued [ISO 11620:2014, B.3.3.6]; Employee Productivity in Media Processing [ISO 11620:2014, B.3.3.4].

B.3.3.6 Staff Costs per Title Catalogued

B.3.3.6.1 Objective

To assess the staff costs of a specific policy for producing bibliographic records and therewith the efficiency of the library's practices and processes.

B.3.3.6.2 Scope

The indicator is relevant for all libraries whose tasks include producing bibliographic records.

The indicator can be split up as to different types of documents. Both complete and partial production of records and the import of data are included.

The indicator is not meant to measure the quality of cataloguing.

Comparison of libraries is possible, if the percentage of copy and/or minimal cataloguing, the type of subject cataloguing and classification, and differences in salaries are taken into account.

B.3.3.6.3 Definition of the indicator

The staff cost of providing a description of a document and its logical and coherent insertion into a catalogue file, divided by the number of titles catalogued.

NOTE 1 For the purpose of this indicator, the term cataloguing refers to the physical description of a document and includes copy cataloguing, full original cataloguing, minimal original cataloguing, and re-cataloguing.

NOTE 2 Capture of authority records, subject analysis, indexing, and classification are also included.

NOTE 3 For the purpose of this indicator, staff costs include wages and other employee benefits; other staff costs are excluded.

To avoid misunderstandings, the user of the indicator should state explicitly what type and part of cataloguing is included in the calculation.

B.3.3.6.4 Method

The period used for measurement is fixed by the user of the indicator. Data should be collected during the defined sample period.

To obtain the number of hours spent on producing bibliographic records, staff involved in cataloguing note the time they spend on this task during the sample period, as employees are sometimes involved in several tasks. Thus, the proportion of time that every employee dedicates to cataloguing can be calculated. If time logging is not possible, this proportion can instead be estimated.

The Staff Costs per Title Catalogued is

$$\frac{A \times B}{C}$$

where

A is the total number of hours spent, during the sample period, on producing bibliographic and authorities descriptions, and identifying and retrieving imported bibliographic data;

B is the cost per hour of labour (wages during the sample period divided by the regular working time of the relevant staff).

C is the number of titles catalogued during the sample period.

NOTE 1 The product of $A \times B$ should be calculated for each staff member separately, then summed over all staff, before dividing by C.

NOTE 2 Other costs (buildings, operations, etc.) are specifically excluded in the calculation of this indicator, to allow comparisons between different methods of producing bibliographic records.

B.3.3.6.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit.

The staff costs of a catalogue entry can be affected by a number of factors, e.g. the different level of bibliographic description, the range and depth of authority control. The costs would be expected to reflect these differences.

The costs should be appraised in relation to the quality of the catalogue:

— effectiveness for users;

— effectiveness for staff (stock control and other internal functions);

— conformity to standards for exchange and communication.

If the costs per title catalogued seem too high, the library might

— reconsider the level of description for specified groups of materials,

— look to technical aspects, such as software and hardware performance,

— revise workflows, or

— increase the amount of imported data by cooperation with other libraries in the country.

B.3.3.6.6 Source(s)

See A.9.1 of Reference [5].

B.3.3.6.7 Related indicators

Employee Productivity in Media Processing [ISO 11620:2014, B.3.3.4].

B.3.4 General

B.3.4.1 Cost per User

B.3.4.1.1 Objective

To assess the cost of the library's service related to the number of users.

B.3.4.1.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for comparison between libraries with the same mission, if the calculation of expenditure is done in the same way.

B.3.4.1.3 Definition of the indicator

The total recurrent or operating expenditure of the library in a full financial year divided by the number of users.

The total recurrent expenditure is the sum of expenditures for

a) acquisitions (including binding, licenses, and pay-per-view costs),

b) staff (including project staff, student assistants, etc.) and staff training, and

c) all other purposes: operations and maintenance of computers and network, software licenses and telecommunication, rent and maintenance of premises, utility costs (heat, electricity, water, sewage), repair or replacement of existing furnishings and equipment, and other costs such as cataloguing records, copying, postage, promotion of services, stationery, insurance, transport and communications, consulting, etc.

For the purpose of this indicator, a user is a person who has visited the library or used the services or facilities of the library in other ways during the last year. For libraries in which loans are the principal activity, the number of users with registered loans can be used as an estimate of the number of users in the target population.

B.3.4.1.4 Methods

a) Draw a random sample from the population to be served. Ask each person in the sample whether he/she has visited the library, or used the services of the library in other ways, during the last year. Calculate the total recurrent expenditure for one financial year, using accounts data. An estimate for the current year can be made from budget data.

The Cost per User is

$$\frac{A}{D} \times \frac{C}{B}$$

where

A is the total recurrent expenditure of the library in a full financial year, expressed in the relevant currency;

B is the number of persons in the sample answering, “yes”;

C is the number of persons in the sample;

D is the number of persons in the population to be served.

Round off in the manner customary with the currency used.

b) From the records of the library system, count the number of users (belonging to the population to be served) who borrowed documents within the last year (active borrowers).

The Cost per User is

$$\frac{A}{B}$$

where

A is the total recurrent expenditure of the library in a full financial year, expressed in the relevant currency;

B is the number of active borrowers within the last year.

Round off in the manner customary with the currency used.

B.3.4.1.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit.

The indicator could be used for evaluating:

— the cost-effectiveness of a library in different periods;

— the cost-effectiveness of a library in a local community in comparison with other services;

— the cost-effectiveness of a library compared with other libraries of the same type.

This indicator should not be used by itself. It is useful for placing the service indicators in a more general context. When judged against the library's objectives, it can be useful in justifying expenditure of public funds and helping to understand differences of costs between similar libraries.

The calculation could be affected by differences in accounting methods. Where this method counts only active borrowers, the result can overestimate cost per user by ignoring those who use other services but do not borrow documents.

B.3.4.1.6 Source(s)

See Reference [11] pp. 52 - 53.

B.3.4.1.7 Related indicator(s)

Cost per Library Visit [ISO 11620:2014, B.3.4.2]; Cost per Collection Use [ISO 11620:2014, B.3.1.1].

B.3.4.2 Cost per Library Visit

B.3.4.2.1 Objective

To assess the cost of the library's service related to the number of library visits.

B.3.4.2.2 Scope

The indicator is applicable to all libraries.

The indicator can be used for comparison between libraries with the same mission, provided the counting of visits and the calculation of expenditure is done in the same way.

B.3.4.2.3 Definition of the indicator

The total recurrent expenditure of the library in a full financial year, divided by the number of visits (including virtual visits) to the library.

The total recurrent expenditure is the sum of expenditures for

a) acquisitions (including binding, licenses, and pay-per-view costs),

b) staff (including project staff, student assistants, etc.) and staff training, and

c) for all other purposes: operations and maintenance of computers and network, software licenses and telecommunication, rent and maintenance of premises, utility costs (heat, electricity, water, sewage), repair or replacement of existing furnishings and equipment, and other costs such as cataloguing records, copying, postage, promotion of services, stationery, insurance, transport and communications, consulting, etc.

Capital expenditure (on acquisition of, or addition to, building sites, new buildings, and extensions, on computer systems, furniture, and equipment) is excluded.

For the purpose of this indicator, a visit is a person (individual) entering or leaving the library premises (only count one entry or exit, not both). A virtual visit is one continuous cycle of user activities on the library website by users from outside the library's IP address space (usually from outside the library premises), regardless of the number of pages or elements viewed

B.3.4.2.4 Methods

a) Use a turnstile or similar device to automatically count the number of people leaving or entering the library. Count the number of virtual visits for the same time period. Calculate the total recurrent expenditure for one financial year using accounts data. An estimate for the current year can be made using budget data.

The Cost per Library Visit is

$$\frac{A}{B+C}$$

where

- A is the total recurrent expenditure of the library in a full financial year, expressed in the relevant currency;
- B is the total number of physical library visits in a full year;
- C is the total number of virtual visits in a full year.

Round off in the manner customary with the currency used.

b) The number of visits and virtual visits can also be assessed by sampling. Count the number of physical and virtual visits during one or more sampling periods. The number and length of the periods is selected by the user of the indicator. Estimate the total number of visits and virtual visits for one year by extrapolation, using available information about variations during the year.

NOTE Public libraries will typically use one period of one week; academic libraries, two or more periods reflecting the cycle of academic activities.

The Cost per Library Visit is

$$\frac{A}{B+C}$$

where

A is the total recurrent expenditure of the library in a full financial year, expressed in the relevant currency;

B is the total number of physical library visits in a full year;

C is the total number of virtual visits in a full year.

Round off in the manner customary with the currency used.

B.3.4.2.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit.

This indicator should not be used by itself. It is useful for placing the service indicators in a more general context. When judged against the library's objectives, it can be useful in justifying expenditure of public funds and helping to understand differences of costs between similar libraries.

The calculation could be affected by differences in accounting methods and in the counting of visits.

If a turnstile is used to count visitors, the count can be too high because of the staff, and possibly other nonusers that are included.

Where there is a substantial amount of seasonal variation, the count should be made for shorter periods of time during which use is more regular.

B.3.4.2.6 Source(s)

See Reference [11] pp. 52 - 53 (variant of "Cost per User").

B.3.4.2.7 Related indicator(s)

Cost per User [ISO 11620:2014, B.3.4.1]; Library Visits per Capita [ISO 11620:2014, B.2.2.1].

B.4 Potentials and Development

B.4.1 Collection

B.4.1.1 Percentage of Expenditure on Information Provision Spent on the Electronic Collection

B.4.1.1.1 Objective

To assess the extent to which the library is committed to building an electronic collection.

B.4.1.1.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for specified parts of a library collection (e.g. journals, subject areas) or individual branches of a library. Within each of these categories, the resulting indicators can be compared to see whether the percentage differs significantly.

Comparisons between libraries can be possible if differences in subject coverage, collection policies, and socio-economic factors in the population are taken into consideration.

B.4.1.1.3 Definition of the indicator

The percentage of the library's total expenditure on information provision spent on the electronic collection.

The electronic collection includes databases, electronic serials, and digital documents.

Expenditure on the electronic collection, for the purpose of this indicator, comprises the library's acquisition, subscription, and licensing costs. As an alternative, a library might decide to include pay-per-view and electronic document delivery costs with the costs of collection building. This should be stated clearly when publishing or comparing scores.

Total acquisitions expenditure would exclude expenditure on binding.

Expenditure on infrastructure, such as hardware, software, or networking, and on digitization of documents should not be included.

Value added taxes, sales and service taxes, or other local taxes are included. Their inclusion can affect international comparisons.

B.4.1.1.4 Method

For a given budget period, determine the library's acquisition, subscription, and licensing expenditure (and including, if desired, pay-per-view and electronic document delivery charges) for the electronic collection. If the library joins in consortia or other over-all contracts, only the library's own share in the contractual expenses should be counted. Where electronic versions of documents are acquired in a package with print versions, only the surplus payment for the electronic version should be counted.

The Percentage of Expenditure on Information Provision Spent on the Electronic Collection is

$$\frac{A}{B}\times 100$$

where

A is expenditure on the electronic collection;

B is total expenditure on information provision.

Round off to the nearest integer.

B.4.1.1.5 Interpretation and factors affecting the indicator

The indicator is an integer between 0 and 100.

Comparison over time shows the extent to which a library shifts its focus to electronic information. However, differences in pricing structures between printed and electronic resources have considerable effects on comparisons over time.

The indicator shall be judged against the mission and objectives of the library. Collection policies, the structure of the population, and especially the subjects collected by the library can greatly influence the score.

The indicator should therefore not be used by itself, but in conjunction with indicators of collection use and user satisfaction.

B.4.1.1.6 Source(s)

See the following references:

— Reference[11] (PI 11);

— Reference[9] (PI 1.4);

— Reference [31] pp. 233 - 237.

B.4.1.1.7 Related indicator(s)

Percentage of Library Staff Providing Electronic Services [ISO 11620:2014, B.4.2.1].

B.4.2 Staff

B.4.2.1 Percentage of Library Staff Providing Electronic Services

B.4.2.1.1 Objective

To assess the extent to which the library invests human resources in providing technical support for electronic services.

B.4.2.1.2 Scope

This indicator is applicable to all libraries providing electronic services with their own staff.

The indicator can be used for comparing libraries with the same mission and similar population to be served, provided that the same method of measurement has been used.

B.4.2.1.3 Definition of the indicator

Number of library full-time equivalent (FTE) staff engaged in planning, maintaining, providing, and developing IT services and technically developing and improving the library's electronic services, divided by the total number of library FTE staff.

In the sense of this indicator, providing electronic services means maintaining and developing the automated library system, the library's web server(s), a repository for electronic publications, the electronic reference system, and all other software applications provided for users and staff taking care of computer hardware (servers, computers, printers, and scanners).

Staff in information and help services, in acquisition/processing of electronic resources, in digitization of material for the electronic collection, in user training dealing with electronic library services, and in content-related work on the library's internet services is excluded.

B.4.2.1.4 Method

The number of library staff (FTE) providing and developing electronic library services is calculated by adding the time spent by all permanent and temporary staff, including project staff on planning, maintaining, providing, and developing IT services, and technically developing and improving the library's web-based services.

Since many staff members can contribute time to technical support, data can be collected by sampling. For example, staff can be required to keep work diaries for a day, or for several representative days, and the amount of time spent on technical support can then be calculated as a percentage of the total staff time worked during the sampling period.

The total number of library staff (FTE) is calculated by adding the total FTE library staff including all permanent and temporary, including project staff.

If time logging is not possible, an estimate could be made.

The Percentage of Library Staff Providing and Developing Electronic Library Services is

$$\frac{A}{B} \times 100$$

where

A is the number of library staff (FTE) providing, maintaining, and developing IT and/or web-based services;

B is the total library staff (FTE).

Round off to the nearest integer.

B.4.2.1.5 Interpretation and factors affecting the indicator

The value of this indicator is an integer between 0 and 100. The score indicates the priority the library gives to provide and develop its IT and web-based services.

If any of the above responsibilities have been out-sourced to an IT department or other external institution (in return for payment or not), this indicator should only be applied if the external workload can be quantified accordingly (i.e. as FTE). This amount should be added to both A and B in the formula.

B.4.2.1.6 Source(s)

See the following references:

— Reference[11] PI 4.4;

— Reference [9] adapted from PI 13;

— Reference [31] pp. 238 - 241.

B.4.2.1.7 Related indicator(s)

Percentage of Expenditure on Information Provision Spent on the Electronic Collection [ISO 11620:2014, B.4.1.1].

B.4.2.2 Number of Attendance Hours at Formal Training Lessons per Staff Member

B.4.2.2.1 Objective

To assess the improvement of library staff skills by attending training lessons.

B.4.2.2.2 Scope

This performance indicator is applicable to all libraries.

B.4.2.2.3 Definition of the indicator

The number of attendance hours of staff members at formal training lessons divided by the total number of library staff (number of persons, not FTE).

Training is organized in pre-planned lessons which can be held in-house, externally, or online and hosted by library staff, subject matter experts, or expert systems (e.g. training content websites).

The indicator also assesses the number of attendances at training lessons.

B.4.2.2.4 Method

The number of attendance hours at formal training lessons can be identified by keeping a record of library staff attending these lessons and by counting the hours of duration of these lessons. This number is then divided by the total number of staff members.

The Number of Attendance Hours at Formal Training Lessons per Staff Member is

$$\frac{A}{B}$$

where

A is number of attendance hours at formal training lessons during a specified time period;

B is total number of staff members.

Round off to the nearest integer.

B.4.2.2.5 Interpretation and factors affecting the indicator

The indicator is a real number with no top limit. A higher number indicates better qualification in terms of training attended. A lower number can indicate the need to promote staff training. A high number of attendances at formal training lessons can, however, involve the same staff member(s). The indicator does not include informal training and can therefore just indicate the average degree of further training but cannot provide an exact and overall penetration measure.

B.4.2.2.6 Source(s)

See the following references:

— Reference [8] p. 35 (“hours of formal information technology instruction per staff member”);

— Reference[11] (adapted from PI 12);

— Reference[9] (PI 4.1);

— Reference [31] pp. 238 - 241 (“Attendances at training lessons per staff member”).

B.4.2.2.7 Related indicator(s)

Percentage of Library Staff Providing Electronic Services [ISO 11620:2014, B.4.2.1]; Percentage of Staff Time Spent in Training [ISO 11620:2014, B.4.2.3].

B.4.2.3 Percentage of Staff Time Spent in Training

B.4.2.3.1 Objective

To assess the percentage of staff time allocated to formal training activities for the purpose of enhancing staff skills.

B.4.2.3.2 Scope

The indicator can be used in all types of libraries, but is most appropriate when used at the level of the library sector (e.g. total of public libraries, total of libraries of higher education).

B.4.2.3.3 Definition of the indicator

The proportion of total working hours the library invests in staff training as a percentage.

B.4.2.3.4 Method

Count the number of hours that staff members attend formal training. Training will usually occur during working hours, but training on weekends and free days shall also be counted, if the training hours are interpreted as work time. Include the use of online training modules by library staff.

Count the working hours that are in theory available during the reporting year (gross working hours, including holidays and illnesses). Include temporary staff, project staff, and student assistants. Volunteers and persons in janitorial services are excluded.

The Percentage of Staff Time Spent in Training is

$$\frac{A}{B}\times 100$$

where

A is the total hours spent receiving staff training;

B is the total number of working hours available in the library.

Round off to one decimal point.

B.4.2.3.5 Interpretation and factors affecting the indicator

The performance indicator is a real number in the range 0 to 100.

A higher percentage indicates an improvement of competence in terms of training attended. A lower percentage can indicate the need to promote staff training. Libraries shall strike a balance in the proportions of time that staff spends in various activities.

A high percentage of staff time spent at formal training lessons can be the result of a few staff members attending many lessons. It will be important for the managers to monitor the total number of different staff who attend training.

The performance indicator does not include informal training and could therefore underestimate the amount of staff training.

The performance indicator will be affected by the number and length of training lessons offered and by the quality of the training. The quality of the lessons should be monitored by satisfaction questionnaires and/or by tests that assess the learning outcome of staff. The performance indicator will also be influenced by the introduction of new services during the reporting year that require additional training.

In case of low attendance at training lessons, the library could promote the training lessons via its intranet or personal invitation and try to assess the employees' needs for specified training lessons.

This indicator should be used for comparison within a library sector, e.g. public, national, academic. Library size, total number of FTEs, and other library-specific variables can influence the indicator and should be considered if used for comparison purposes.

B.4.2.3.6 Source(s)

See Reference[9] (Public libraries) and Reference.[27]

B.4.2.4 Percentage of Staff in Cooperative Partnerships and Projects

B.4.2.4.1 Objective

To assess the library's local, regional, national, and international cooperation and therewith the library's importance in and impact on the library world.

B.4.2.4.2 Scope

The indicator is applicable to all libraries.

Comparison between libraries is possible, if the different opportunities for project funding are taken into consideration.

B.4.2.4.3 Definition of the indicator

The number of library staff (FTE) in cooperative partnerships and projects, divided by the total number of library staff (FTE).

NOTE 1 A partnership is defined as an on-going, formalized cooperation between a library and one or more other organizations, including other libraries, usually concerning particular services or activities.

NOTE 2 A project is defined as a unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost, and resources.

NOTE 3 Only institutionalized and/or especially funded cooperation initiatives and projects should be considered for this indicator, e.g. working groups or committees established by library associations or projects funded by governmental or research organizations.

NOTE 4 As a subset, the percentage of staff engaged in international cooperation and projects could be assessed separately.

NOTE 5 International projects in the context of this indicator are those with at least one partner from outside the nation.

B.4.2.4.4 Method

The number of library staff (FTE) in cooperative partnerships and projects is calculated by adding the time spent by all permanent and temporary staff, including project staff, on planning, maintaining, and developing cooperation, and working in cooperative projects.

The number of staff working on international partnerships and projects can also be counted separately.

Since many staff members contribute time to partnerships and projects, data should be collected by sampling. The staff is required to keep work diaries or time logs for a week, or for several representative days, and the amount of time spent on partnerships and projects is then calculated as a percentage of the total staff time worked during the sampling period.

If time logging is not possible, an estimate could be made.

The Percentage of Staff in Cooperative Partnerships and Projects is

$$\frac{A}{B} \times 100$$

where

A is the number of library staff (FTE) planning, maintaining, and developing partnerships and projects;

B is the total number of library staff (FTE).

Round off to one decimal place.

B.4.2.4.5 Interpretation and factors affecting the indicator

The indicator is a real number between 0 and 100.

A high percentage will be considered as good, as it shows the engagement of the library in challenges of the information society.

The indicator results can vary greatly over years and can be influenced by the availability of funding for projects.

The indicator will be most useful if applied consistently over years.

B.4.2.4.6 Source(s)

See A.7.4 of Reference [5].

B.4.3 General

B.4.3.1 Percentage of Library Means Received by Special Grant or Income Generated

B.4.3.1.1 Objective

To assess the library's success in obtaining additional financial resources.

B.4.3.1.2 Scope

This performance indicator is applicable to all libraries.

The indicator can be used for comparisons over time or to other libraries if differences in the funding institution and special tasks of the library that are continuously funded by external bodies are taken into account.

B.4.3.1.3 Definition of the indicator

The percentage of library means received by special grants or income generated.

The overall library means include means for capital expenditure. The means received by special grants or income generated include those means for capital expenditure that were not paid by the funding bodies.

Special grants in the sense of this indicator are grants of a non-recurrent nature to fund major projects. Continuous funding by external bodies for special tasks of the library (e.g. keeping a centre for library education) is not considered as special grant, but included in the overall library means.

Income generated by the library includes income from fees, charges, and subscriptions, donations, and income generated by special activities such as a library shop or advertisements.

B.4.3.1.4 Method

Determine the overall means of the library, including means for capital expenditure. As a subtotal, obtain the income generated by the library and special grants, including those means for capital expenditure that were not paid by the funding bodies.

The Percentage of Library Means Received by Special Grants or Income Generated is

$$\frac{A}{B} \times 100$$

where

A is the library means received by special grants and income generated;

B is the overall means of the library.

Round off to one decimal point.

B.4.3.1.5 Interpretation and factors affecting the indicator

The indicator is a real number between 0 and 100.

A higher score can indicate that the library successfully acts on its own initiative to obtain additional means. In this case, the library is considered ambitious and motivated.

The indicator also helps to gain knowledge about the extent to which the library is involved in tasks that go beyond the main mission of the library and therefore qualify for extra means.

The indicator can be influenced by the library's mission involving more or less research work for which more grants might be available. It could also be influenced by a decrease in means received by the funding bodies. Such a decrease would lead to an increase of this indicator, if the library's special grants and earnings remain constant.

B.4.3.1.6 Source(s)

See Reference[9] (PI 4.3) and Reference [31] pp. 246 - 249.

B.4.3.2 Percentage of Institutional Means allocated to the Library

B.4.3.2.1 Objective

To measure the importance of the library (expressed in monetary units) to and the support by the funding institution.

B.4.3.2.2 Scope

This performance indicator is applicable to all libraries of an institution of higher education. Comparison between integrated library systems and 2-tier systems with many departmental libraries can be difficult.

Public and special libraries can adapt this indicator to obtain the percentage of public means allocated to the library from the total budget of their funding authority.

B.4.3.2.3 Definition of the indicator

The percentage of institutional means (excluding third party funds) allocated to the library.

The institutional means, in the sense of this indicator, include the whole budget of the parent institution of one year, but without third party funds and without remainder of the previous year.

The means of the library, in the sense of this indicator, are comprised of all funds received from the parent institution, including acquisition, material, and staff costs, capital expenditure, and one-time funds. Third-party funds, special grants, and income generated by the library are excluded.

Special grants are grants of a non-recurrent nature to fund (or partly fund) major projects.

B.4.3.2.4 Method

Determine the means of the library (including capital expenditure, and one-time funds received from the institution, excluding third-party funds and special grants, as well as income generated by the library) in a given budget period.

Determine the means of the parent institution (without third-party funds) for the same period.

The Percentage of Institutional Means Allocated to the Library is

$$\frac{A}{B}\times 100$$

where

A is the library means;

B is the institutional means.

Round off to one decimal place.

B.4.3.2.5 Interpretation and factors affecting the indicator

The indicator is a real number between 0 and 100.

A higher score is usually considered as good. It indicates that the funding institution acknowledges the library's value for the institution and its financial needs and can allow the library to offer better services to its users.

This indicator will be influenced by the existence of external funding bodies and structures (e.g. governmental means). It will also be influenced by special tasks of the library with a high amount of funding, e.g. special collections funded by an external institution.

B.4.3.2.6 Source(s)

See Reference[9] (PI 4.2) and Reference [31] pp. 250 - 253.

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