**Utilization of indicators in the National Diet Library
(NDL): Efforts for activity evaluation**

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Abstract:

The National Diet Library (NDL) will report on its evaluation system the "activity evaluation" on which we are working to improve operations and guarantee the quality of the NDL services. In addition to a detailed report on the calculation of indicators and utilization of calculation results, I will touch upon the results of our trial calculation of the Performance Indicators for the National Library (ISO/DTR28118) in 2007.

The NDL has been working on activity evaluation since FY 2004 to promote good administration of activities and projects and also to achieve accountability. Activity evaluation aims to accomplish the NDL vision concretely through setting specific priority objectives and service standards every fiscal year, and providing performance measurement and evaluation after the end of the fiscal year. (For details, please refer to

http://www.ndl.go.jp/en/aboutus/evaluation_system.html on the NDL website.)

In the framework of this evaluation, the NDL has been developing various indicators based on user questionnaire surveys and statistics every fiscal year and utilizing them for services improvement. In particular, library service indicators are called "service standards" and released on the web and elsewhere to show our current service standards in numerical terms to users.

1. Introduction

In today's library world, performance evaluation, especially library operation with indicators, attracts more and more attention. Performance indicators and performance measurement have been introduced mainly in public and academic libraries so far, but we believe they have the same effectiveness on national libraries which have special missions. As you already know, performance indicators for national libraries have been considered in the International Organization for Standardization / Technical Committee 46 - Information and documentation / Subcommittee 8 - Quality-Statistics and Performance Evaluation (ISO/TC46/SC8). ISO/TR28118 (performance indicators for national libraries) will be published as the result of the consideration.

In this presentation, I will introduce the NDL's evaluation system called "activity evaluation" and case examples of performance improvement by using several indicators in the system. I believe these examples will prove the effectiveness of indicators in the administration of national libraries.

In addition, I will brief our trial calculation results of draft indicators of ISO/DTR28118 implemented in 2007.

2. Evaluation system of the NDL: Activity evaluation

The NDL introduced an evaluation system called "activity evaluation" in 2004 to promote good administration of activities and projects as well as to achieve accountability as a national institution. Activity evaluation aims to accomplish the Vision which sets our topmost goals. Activity evaluation employs a plan-do-check-act (PDCA) management cycle: We set objectives every fiscal year and assess progress and outcome at the end of the fiscal year.

In Japan, national government administrative organs are required to implement an evaluation system called Policy Evaluations System. However the NDL is the only national library in Japan. It is also the library for the National Diet and belongs to the legislature, independent from the government. In light of such unique characteristics, we develop and use our own evaluation system, not Policy Evaluation.

Outline of the evaluation system

<Fig. 1 > The NDL Activity Evaluation（FY 2008）

Nagao Vision
"Through knowledge we prosper"

Priority objectives

User questionnair surveys

Statistics

Performance measurement investigation

Inspect actual performance

Priority activities plans

1–3 year plan to fulfill the priority objectives

Budget execution plans
For supporting priority activities

Plans for execution of projects
For supporting priority activities

<NDL services>

Service standards

Indicators expressing current service levels in numerical terms

In the activity evaluation, we set objectives and evaluate them based on the system in Fig.1. Priority objectives, priority activities plans, service standards make use of several indicators in this system. I will explain about each component of the evaluation system.

【**Vision for the NDL's 60th anniversary（Nagao Vision）**】

The vision embodies the topmost goals of the NDL. In 2008, when celebrating the NDL's 60th anniversary, we reconfirmed our missions and set again a vision for which we

should aim in future. The previous NDL Vision 2004 was subsumed in the new vision, which is commonly called "Nagao Vision." because it embodies the concept of Dr. Nagao who took office as Librarian in April 2007.[i]

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Vision for the NDL's 60th anniversary

(Nagao Vision)

The National Diet Library strives to achieve the following seven goals under the slogan: "Through knowledge we prosper"

- Enhance our legislative support function by improving services for the National Diet
- Make an exhaustive collection of results of intellectual activities in Japan to preserve them as common resources of the nation
- Provide prompt and precise access or links to information needed by users
- Seek to provide equally good service to all users regardless of where they are
- Offer a variety of appealing services to society and increase NDL's visibility
- Promote closer cooperation with libraries of various kinds in Japan including public libraries
- Try to share and exchange information by maintaining close relationships with overseas libraries

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【Priority Objectives】

In order to accomplish the vision, the NDL set up the priority objectives to be carried out within one to three years. Every fiscal year we assess progress and outcomes in each

objective. The objectives and evaluation results are widely publicized through the NDL website[ii] and the National Diet Library Monthly Bulletin.

【Priority activities plans】

Priority activities plans are concrete plans to fulfill the priority objectives. Every fiscal year we evaluate each plan and reflect the results on plans and priority objectives for the next fiscal year. The priority activities plans are implemented with the support of plans for execution of budget and other projects.

【Service standards】

Service standards are indicators for the library services of the NDL. They show our current service standards to users and libraries in numerical terms. Here is an example. "We send copies requested via the Internet within 5 working days after receiving the request: 80% (standard value)." For details, please see Appendix A: Service standards of FY 2007.

The service standards are indicators but not target values. We intend to guarantee the service level as well as to achieve accountability to users by announcing the current service standards. We inspect the actual performance values of service standards every fiscal year and reflect them in those for the next fiscal year.

【Framework for performance measurement】

To coincide with the launch of the activity evaluation, the NDL developed a framework of performance measurement to measure achievement of the objectives and standards

and use them as the basis for setting new objectives and standards. We redesigned the statistical system to see the accurate amount of library activity and conducted inspections to measure actual service performance. Moreover, we made it possible to see the annual change of degree of user satisfaction and needs for service improvement by carrying out a user questionnaire survey every fiscal year.

In the framework of the activity evaluation, we adopt analytical methods of strategic management, which is the part that clarifies and evaluates the objective from the vision to priority objectives. This type of methods is also adopted in many other national libraries. However in the NDL, aiming at effective resource allocation, we built the system covering not all library activities but only priority areas.

We set several indicators in each priority activities plan and also use them as evaluation indicators when assessing the priority objectives. Please see Appendix A. It is an example. In the activity evaluation, the indicators are calculated based on statistics and user surveys and the results are reflected in the priority activities plans and the priority objectives for the next fiscal year.

Service standards are indicators which share high similarity with "performance indicators." However the indicators of the NDL have the characteristic that they are used not as target values but for guaranteeing the current service level. (The British Library and the National Library of Australia also have service standards for similar purposes.)

3. Utilization of indicators

Improvements in reference service by postal mail or fax via other libraries

Next, I will tell you about one improvement achieved by the use of indicators in the activity evaluation.

As you already know, "Mission and goals of national libraries," Annex B of ISO/DTR28118, includes "To provide central services (e.g. reference, bibliography, lending, and document delivery) to users both directly and through other library and information centres." That is to say, reference services via other libraries are important services for a national library as the central library of the nation. Since FY2004, we have been providing such services by setting a service standard which says "We respond to reference inquiries by mail or fax via libraries within 20 working days after receiving the request."

The standard value of this service in FY2004 was "75% or better." However as the result of the inspection of the performance by a sample survey conducted from August to October in 2004, we found that the actual performance value was 71.4%, below the standard value. So in the next year, in 2005, we set a priority activities plan for revising the workflow of reference service by mail or fax and made efforts to improve the services. Specifically, we analyzed and inspected the existing reference query processing flow, and drew up an improvement plan for reference services by mail or fax. Based on the plan, we revised the processing flow, made a table for reference workflow management, and set a target completion due date by query level. Consequently, we managed to shorten response days in one year and the actual performance value of the service

standard was dramatically improved to 92.7%.
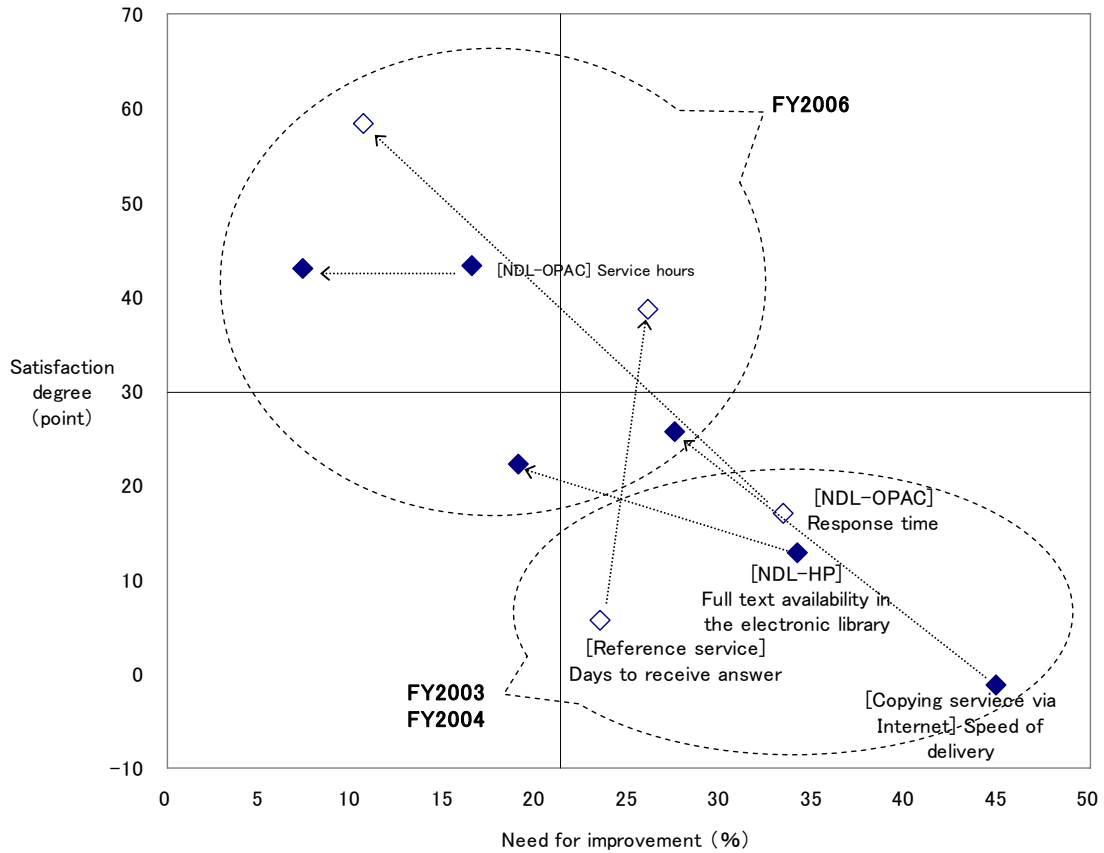
Utilization of User questionnaire surveys

Not only the actual performance value of the service standard but also users' satisfaction degree, which is an outcome of the library service, was improved in reference work.

As I mentioned earlier, the NDL conducts an annual questionnaire survey targeting on-site users, remote users who enjoy services via the NDL website or copying service by postal mail, and domestic libraries. In the survey, we ask their degree of satisfaction on each service element including " [Reference service] Days to receive answer," and make it possible to gasp annual changes by using the degrees as benchmarking indicators.

In the survey, we ask about the user satisfaction degree and need or no-need for improvement on each service element. Based on these, we calculate the need-for-improvement rates and use them for determining on which services we should put priority to improve. The figure below shows the correlation between the users' satisfaction degree and the need–for-improvement rate.

<Fig.2>

Improvements in the users' satisfaction degree and the need-for-improvement rate

* The user satisfaction degree is calculated as follows:

specify each answer as "satisfied"=100 points; "fairly satisfied"=50 points; "not very satisfied"=minus 50 points; "dissatisfied"=minus 100 points; and "No answer" or "Never used" =0 point; and multiply the points by the response rate of each answer.

"Need-for-improvement rate" in each service element is the ratio of the respondents who want to see improvement to the total number of respondents. Separator lines on each axis show the average value of all elements.

*■ NDL-HP survey, □ Libraries survey

The satisfaction degree axis and the need-for-improvement rate axis are divided by the average, therefore the figure is divided into four areas. Of these areas, the highest

priority should be put on the service elements in the lower right area, which have a lower satisfaction degree and a higher need-for-improvement rate.

For the service elements placed on the lower right in past user surveys, we incorporated the results in setting objectives and made special efforts for improvement through the evaluation system.

"Days to receive answer" of the reference services by mail or fax was placed on the lower right in FY 2004 survey but as the result of our efforts, we see the satisfaction degree increased as it moved upward.

Trial calculation of draft indicators (ISO/DTR28118)

From August to October in 2007, the NDL did a trial calculation of draft performance indicators for national libraries（ISO/DTR28118）which were being discussed in ISO/TC46/SC8/WG7. The trial was made for the third WG meeting in Munich. I attach the result as Appendix C. Here, in closing, let me briefly explain about it.

We could make calculations on 22 indicators, 73% of the 30 draft indicators at that time. Among them, it was easier for us to calculate eighteen indicators because they are: (1) four indicators which are the same as those used in the NDL service standards (e.g. "Median time of document retrieval from closed stacks") (2) ten indicators which can be calculated based on existing figures in the statistics or the user questionnaire surveys in the framework of the performance measurement of the NDL (e.g." Number of attendances per cultural event"）, (3) four indicators which were easily calculated by

adding some data to existing statistical figures (e.g. "Employee productivity in media processing").

On the contrary, indicators such as "Percentage of national publications acquired by the National Library," "Usage of foreign publications acquired during the 3 years" were difficult to calculate. In particular, "Percentage of national publications acquired by the National Library" is difficult to calculate, because the NDL did not have the know-how for counting the number of national publications accurately, even though the indicator is essential to examine the missions of a national library. The calculation was hard work because we had to start with determining which bibliographies or catalogues should be chosen in order to count the number of national publications as the denominator. Now, we plan to include this kind of indicator in our evaluation indicators and utilize the trial results to improve legal deposit tasks.

Although the comparison of indicators with other institutions is one of the important evaluation techniques in performance measurement, it is often difficult for a national library to compare its indicators with other kinds of libraries because of its special missions. This is a big issue for the NDL, the sole national library in Japan. We expect that the establishment of performance indicators for national libraries as an ISO technical report will facilitate comparison with other national libraries and lead to effective use of indicators.

4．Conclusion

As I mentioned here, the NDL makes good use of indicators in its administration and in making improvements in its activities. In order to guarantee the national library service and fulfill our missions as a national library, we will continue to make active use of performance indicators and performance measurement.

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i http://www.ndl.go.jp/en/information/news.html#070402
ii http://www.ndl.go.jp/en/aboutus/ndl_vision.html

Appendix A: NDL Service Standards for FY2007

<Remote services>

Service standards	Standard value
We send copies requested via the Internet within 5 working days after receiving the request.	80%
We ship materials requested via libraries within 4 working days after receiving the request	90%
We respond to reference inquiries by mail or fax via libraries within 20 working days after receiving the request.	90%
<Available time of the NDL/ILCL websites>	
NDL website: We provide 24/7 access to the NDL website.	99.9%
International Library of Children's Literature (ILCL) website: We provide 24/7 access to the ILCL website.	99.3%
<Available time of the NDL-OPAC >	
We provide access to the NDL-OPAC during: Monday-Saturday: 7:00 a.m. to 5:30 a.m.; Sunday: 7:00 a.m. to 1:00 a.m.; 3rd Sunday: 7:00 a.m. to 10:00 p.m.	95%
<Available time of union catalogs and other databases provided on the NDL/ILCL websites >	
We provide access to National Union Catalog Network (Unicanet), Union Catalog of Newspapers in Japan, Union Catalog Database of Children's Literature and the Collaborative Reference Database during the same as the NDL-OPAC.	95%
<Availability of domestic publications (except for non-book materials) acquired via the legal deposit system >	
Within 50 days after accession date we produce bibliographic data for the above publications to be included in the Japanese National Bibliography Weekly List on the NDL website.	90%
Within 65 days after accession date we make the above publications accessible on the NDL-OPAC.	90%
Within 75 days after accession date we index the periodicals and make the indexed data available in the Japan Periodicals Index on the NDL OPAC.	80%
<Number of additions of electronic exhibitions on the NDL/ILCL websites >	
Online Gallery on the NDL website: we add 2 new exhibition a year	100%
Picture Book Gallery on the ILCL website : we add a new exhibition a year	100%

Service standards	Standard values
Guide for Search by Theme on the NDL website: we add or update 200 entries a year.	100%

<On-site services (Tokyo Main Library)>

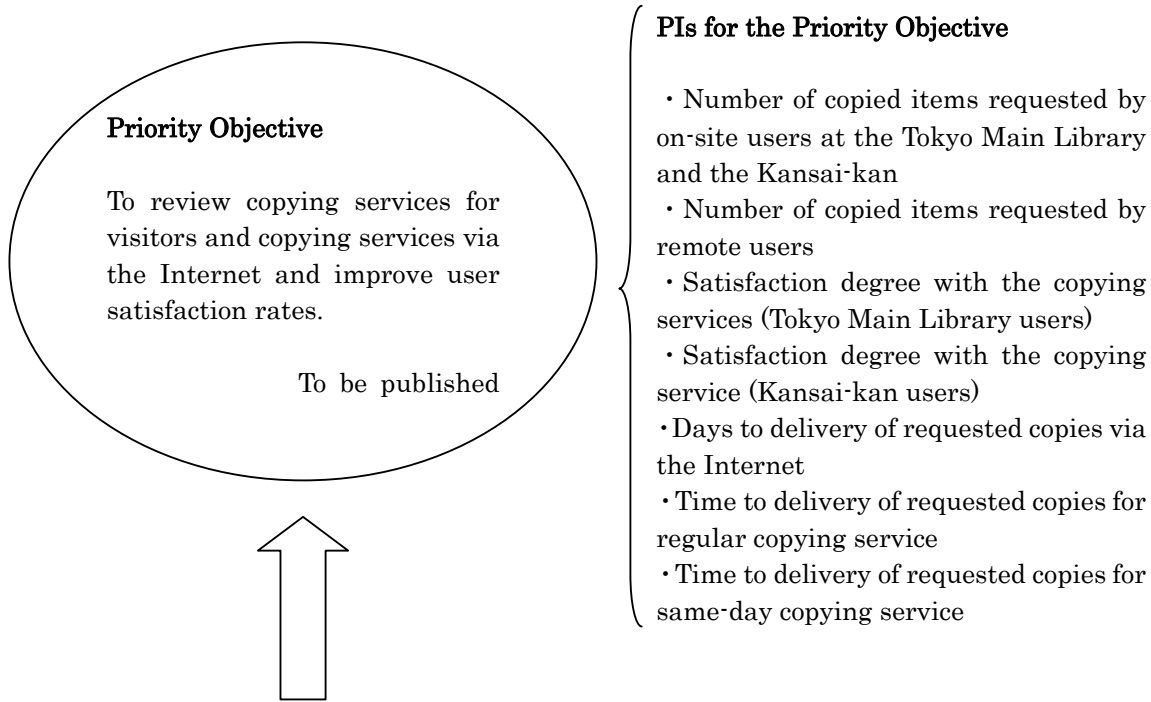| Service standards	Standard values
We deliver the requested materials from the closed stacks within 25 minutes at the Book Counter and Periodicals Counter.	90%
< Time to process requests for copying service>	
Copying service of articles ordered from the Japanese Periodicals Index through the NDL-OPAC inside the library: We deliver requested copies within 50 minutes.	95%
Same-day service: We deliver requested copies within 30 minutes.	80%
Regular service: We deliver after 4 working days except that photographing work adds another 3 working days to make the total 7 working days.	90%
We deliver materials held in the Kansai-kan within 4 working days after receiving the request.	99%

< On-site services (Kansai-kan)>

Service standards	Standard values
We deliver requested materials from the closed stacks within 15 minutes.	80%
We deliver materials held in the Tokyo Main Library within 4 working days after receiving the request.	99%

< On-site services (International Library of Children's Literature)>

Service standards	Standard values
<Exhibitions and events >	
We hold 2 exhibitions a year in the Museum.	100%
We hold 10 different lectures and events a year.*	100%
We hold "Story Hour for Children" and "Picture Book Hour for Small Children under 3 Years Old" 180 times a year in total.	100%
We deliver requested materials from the closed stacks in the Researchers' Reading Room I & II within 15 minutes.	80%

Appendix B: An Example of the Performance Indicators (PIs) in the NDL Evaluation System

Priority Objective

To review copying services for visitors and copying services via the Internet and improve user satisfaction rates.

To be published

PIs for the Priority Objective

・Number of copied items requested by on-site users at the Tokyo Main Library and the Kansai-kan
・Number of copied items requested by remote users
・Satisfaction degree with the copying services (Tokyo Main Library users)
・Satisfaction degree with the copying service (Kansai-kan users)
・Days to delivery of requested copies via the Internet
・Time to delivery of requested copies for regular copying service
・Time to delivery of requested copies for same-day copying service

One of the Priority Activity Plans to fulfill the above Priority Objective

Priority Activity Plan

Plan for the Improvement of Copying Services at Tokyo Main Library

Not to be published

PIs for the Priority Activity Plan

・Number of copied items requested by on-site users at the Tokyo Main Library
・Number of copied items requested by remote users
・Satisfaction degree with the copying services (Tokyo Main Library users)

Appendix C: Trial results of the National Diet Library for 2006

Performance indicator (ISO/DTR28118)	Trial results at the National Diet Library	Target period / Trial Remarks
A.1.1 Percentage of national publications acquired by the National Library	Books Government Publications: 89.8% Private Publications: 88.0%	Materials published in 2005
A.1.2 Percentage of required national imprint titles in the collection	Sampling difficult; attempt abandoned.	
A.2.1 Percentage of new entries in the national bibliography	Sampling difficult; attempt abandoned.	
A.2.2 Percentage of rare materials accessible via web catalogues	Percentage of rare materials catalogued : 99.0% * We could not count the number of rare materials accessed via web catalog.	FY2006
A.3.1 Median time of document processing	<Median Time> Median time of monographs*: 50days * domestic publications acquired via legal deposit system <Service Standards Actual Performance> 98.6% of domestic publications were catalogued within 65 days.	Assessed by random sampling in Sept. 2006 Service standards are available at; http://www.ndl.go.jp/en/aboutus/vision_service_FY2006.html
A.3.2 Shelving accuracy	In the closed stacks of Tokyo main library: 99.99%	August. 2008
A.3.3 Median time of document retrieval from closed stacks	<Median Time> Median time of Tokyo Main Library: 16min Kansai-kan: 12min International Library of Children's Literature(ILCL): 9min <Service Standards Actual Performance> Tokyo Main Library: to deliver requested materials from the closed stacks within 25 minutes at the Book Counter and Periodicals Counter: 95.5% Kansai Kan: to deliver requested materials from the closed stacks within 15 minutes: 81.5% ILCL: to deliver requested materials from the closed stacks in the Researchers' Reading Rom I & II within 15 minutes: 90.2%	Assessed by random sampling in Sept. 2006 Service standards are available at; http://www.ndl.go.jp/en/aboutus/vision_service_FY2006.html

Performance indicator (ISO/DTR28118)	Trial results at the National Diet Library	Target period / Trial Remarks
A.3.4 Speed of interlibrary lending	\<Median Time\> Median time of Tokyo Main Library: 2 days Kansai-kan: 2 days ILCL: 2 days \<Service Standards Actual Performance\> to respond to 99.4% requests for interlibrary loan, within 4 working days after receiving the request.	Assessed by random sampling in Sept.2006 Service standards are available at; http://www.ndl.go.jp/en/aboutus/vision_service_FY2006.html
A.3.5 Direct access from the homepage	Survey difficult; attempt abandoned.	
A.4.1 Usage of foreign publications acquired during the last 3 years	Sampling problem; results not available.	
A.4.2 Cost per download per electronic resource	Sampling problem; results not available.	
A.4.3 Public seating occupancy rate	Sampling problem; results not available.	* The trial day was only one day neither peak, nor off-peak. The results did not include sofas without desks.
A.4.4 Number of attendances per cultural event	Exhibition: 30531.5 Event*: 95.4 *forum, conference, lecture, etc.	FY2006

A.4.5 User satisfaction	In the NDL case, the highest score is 100.
	"satisfied"=100 points
	"fairly satisfied"=50 points
	"not very satisfied"=minus 50 points
	"dissatisfied"=minus 100 points
	"No answer, Never used"=0 point
	
	\<Remote User\>
	  NDL-HP User: 37.7point
	  Librarians: 56.4point
	
	\<On-site User\>
	  Tokyo Main Library: 60.4point
	  Kansai-kan: 62.8point
	  ILCL: 67.12point
		\<Remote User\> survey in 2006
		available at;
		http://www.ndl.go.jp/en/aboutus/user_surveys.html
		
		\<On-site User\> survey in 2005
		available at;
		http://www.ndl.go.jp/en/publication/ndl_newsletter/150/501.html
		http://www.ndl.go.jp/en/publication/ndl_newsletter/151/513.html#up

Performance indicator (ISO/DTR28118)	Trial results at the National Diet Library	Target period / Trial Remarks
A.5.1 Number of documents digitized per 1000 titles in the collection	Number of digitized documents* per year per 1000 titles: 128 *documents issued in the Taisho Era	FY2006 *including copyrighted materials with permission for digitization
A.5.2 Percentage of documents digitized per special collection	NDL have digitized 75% of books issued in the Meiji Era (1868-1912).	*including copyrighted materials with permission for digitization (we could not separate copyrighted materials from copyright-free materials)
A.5.3 Number of content units downloaded per document digitized	Number of content units downloaded per document digitized by the library: 86.6	FY2006 *result from the Digital Library from the Meiji Era and the Rare Books Image Database
A.6.1 Correct answer fill rate	Survey difficult; attempt abandoned.	
A.6.2 Speed of reference transactions	<Service Standards Actual Performance> to respond to 97.6% of reference inquiries by mail or fax via libraries within 20 days (including library holidays) after receiving the request.	April - September 2006 Service standards available at; http://www.ndl.go.jp/en/aboutus/vision_service_FY2006.html
A.7.1 Percentage of library staff providing electronic services	7.40%	April 2007 * excluding contractors
A.7.2 Number of attendance hours at formal training lessons per staff member	Sampling problem; results not available.	FY 2006
A.7.3 Percentage of library means received by special grant or income generated	NDL does not receive any special grant.	
A.7.4 Percentage of staff in national and international cooperation and projects	Percentage of staff in international cooperation and projects: 2.4%	FY2006

Performance indicator (ISO/DTR28118)	Trial results at National Diet Library	Target period / Trial Remarks
A.8.1- A.8.3 <Preserving the collection indicators>	No attempt made.	
A.9.1 Staff costs per title catalogued	Sampling problem; results not available.	
A.9.2 Staff costs per loan	Sampling problem; results not available.	
A.9.3 Employee productivity in media processing	6,612	FY2006 *including contractors
A.9.4 Employee productivity in lending and delivery services	25,560	FY2006 *including contractors