Measuring impact and outcome

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Do we make a difference?
The challenge to prove it
Definitions

**input**

- a contribution of work, information, or material

**output**

- the amount produced, the results supplied

**impact**

- the effect or influence of one person, thing, or action, on another

**outcome**

- the consequence, visible or practical result or effect of an event or activity

**value**

- the importance or preciousness of something, the perception of actual or potential benefit

**benefit**

- a helpful and useful effect that something has
Why should we measure outcome

Accountability
- Limited resources
- Competing priorities
- Results-based budgeting
- Public reporting
- Increasing demand for services

Management of resources
- Planning
- Allocating resources
- Optimizing outcome
- Monitoring effects of change

Promotion of the library's role
- Competing ways of information provision
- Communication of benefits
- Influence on policy makers
The data libraries present today …

Input
- Income / expenditure
- Collection size / additions
- Number of staff
- Study places / PC’s
- Cataloguing data

Output
- Loans / in-house use
- Reference transactions
- ILL / document delivery
- User training lessons
- Attendances at events / exhibitions

Did users benefit? Usage is not synonymous with value
### Performance Measures

#### Input/Use
- Collection turnover
- Use rate of PC-places

#### Costs/Use
- Cost per loan
- Cost per session (on an electronic resource)

#### Use/Population
- Library visits per capita
- Loans per capita

#### Processes
- Book processing speed
- Correct shelving
- Reference fill rate

#### Quality of services
- Efficiency of services
Different outcomes of libraries

- Positive outcomes
- Negative outcomes
- Direct/immediate outcomes
- Long-term outcomes
- Actual outcomes
- Potential outcomes
- Intended outcomes
- Unexpected outcomes
<table>
<thead>
<tr>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual users</td>
</tr>
<tr>
<td>Potential users</td>
</tr>
<tr>
<td>Financing authorities</td>
</tr>
<tr>
<td>Politicians</td>
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<td>Library staff</td>
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<td>The public</td>
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</table>
What libraries are meant to effect

- Knowledge
- Information literacy
- Democracy
- Social inclusion
- Local identity
- Lifelong learning
- Individual well-being

Changes in skills, behaviour, knowledge, attitudes
Outcome of libraries

**Short-term**
- information gained
- problems solved
- time saved
- information seeking skills improved
- IT skills improved

**Long-term**
- information literacy
- improved academic success
- better career chances
- changes in behaviour (reading, use of information)

**Economic value**
- time saved
- effect on the economics of a community / a commercial firm / an institution

**Benefits for the future**
- information stored / made accessible for use in 100 years
Problems of 'measuring' outcome

- Benefits may vary as to user groups
- Values may be seen differently
- Data are not consistent (differing ways of collection)
- All tested methods are time-consuming

Influences on users are complex:
Can we trace improvement back to library services?

We may have to use surrogate measures
### Input
- Collection size
- Staff at reference desk
- Resources spent on user training

### Output
- Issues
- Reference transactions
- Hours of user training

### Performance
- Collection turnover
- Reference fill rate
- Attendances per capita

### Outcome
- Factual knowledge
- Conceptual knowledge
- Promotion of academic/professional success
- Information skills

#### user satisfaction?
User satisfaction

"Satisfaction on the part of a user is an outcome. So is dissatisfaction"  
ACRL

“Customer satisfaction ... is neither outcome nor output. Rather, it is a qualitative assessment of library outputs.”  
Jennifer Cram

- Previous experience affects the perception
- Loyalty influences the answers
- Users may be satisfied without any tangible benefits

Qualitative performance indicator?
Financial value

- Assessing the market value or proxy price of the library's services or a single service

Social impact

- Assessing the imputed value of the library by social audits

Information literacy

- Assessing the impact of library use and user training on the users' information skills

Academic / professional success

- Assessing the relation of academic / professional success (duration of studies, examination results, papers published) to the use of library services
Financial value

Actual or potential benefits to users quantified in money

"Proxy prices" (shadow prices) = prices that would be paid for a service the library offers in the market

Evidence of libraries directly affecting the economics of their institution / community

Costs of a service as determined in a cost analysis

Goal: To show return on investment
Financial value

Replacement value of a client's time

"The value that users place on library services must be at least as great as their sacrifice in accessing and using them".

Glen Holt

Example

Parliamentary Library New Zealand
"Time costs" were compared with purchase costs of the assets used to provide a service

Result:
Services had a value between two and twenty times the annual budgets
Financial value

Contingent valuation

Willingness-to-pay = What would users be willing to pay for a certain service?

Willingness-to-accept = What sum would users accept as equivalent for giving up a certain library service?

Example:

St. Louis Public Library Services

- Market price assessed for each service (as far as possible)
- Telephone survey, focus groups, interviews

Result:

WTA: 9 $ Dollar payback to every 1 $ in current taxes if I agree to close all libraries

WTP: 1 $ paid more to every 1 $ if all libraries are kept open
Financial value

Proxy prices

- What price for a reference transaction done by a commercial firm?
- What prices for lending books/media from commercial suppliers?

Consumer surplus

- Value that users place on the consumption of a service in excess to what they "pay" to get them (time, travelling)

Example:
St. Louis Public Library Services got a surplus 3:1

All methods want to show that libraries do not only create immaterial "value", but that a market value can be proved, and that there is a return on investment.

Would users indeed pay such a sum?

Interested stakeholders
- Financing authorities
- Public
Social impact

Preciousness of library services

- for the individual (direct benefit)
- for the population (indirect benefit)

Methods

- interviews (e.g. "street surveys")
- questionnaires
- telephone surveys
- focus groups

connected with questions as to

- sociodemographic data (age, gender, ethnic origin, income, employment status, academic status)
- frequency of library use
Social impact

Functions of the library that were deemed most important:

- children's literacy
- establishing reading habits
- leisure reading
- cultural meeting point
- access to information
- help in finding information
- job and training information

Direct benefit – potential benefit:
Different views of users / non-users

Subjective assessment often anecdotal evidence

Interested stakeholders
- Politicians
- Public
- Management
Information literacy

Assessing the library’s role in conveying information skills and competences
Assessing the library’s actual and potential role for information seeking

Impact of library use and training

Methods used:
- Outcome – based education
- Accreditation models
- Standard (ACRL)
- Surveys after instruction (“reaction data”)
- Assessing the quality of bibliographies / papers
- Self-assessment of users
- Behavioural observation
- Test
  - pretests / posttests
  - basic skills
  - conceptual knowledge (e.g. critical reading)
- Additional data:
  - faculty
  - term, grade
  - frequency of library use
Information literacy

Example of a “mini-quiz”

- Students are aware of options to get material not available locally.
- Can recognise a Web address, a book citation, a serial citation, and a call number.
- Know how to use the operators AND and OR.
- Know the difference between primary and secondary sources.
- Know the difference between popular and scholarly journals.
- Think library skills will be useful in their chosen profession.
Information literacy

User surveys after a training lesson focus on user satisfaction, not on outcome, and might be complimentary

Self-assessment not reliable
  - 90% of students rated their library skills as adequate
  - 53% were "minimally competent"

Danger to rely on attitudes / opinions

Difficulty to trace skills / competences back to the library

Interested stakeholders
  - users
  - staff
  - institution / community
Information literacy

Information seeking behaviour
- New ways of communication
- Information channels outside the library

What part of information seeking and provision is done via libraries?

Where could libraries step in?

What role do they have as to certain subjects / professions? (chemists, psychologists, nurses, teachers)
Information literacy

Example:

German special collection programme (DFG)
Evaluated from the user perspective
5 subjects: English studies, economics, biology, history, mechanical engineering

Survey of 5000 academics as to:
- information seeking ways
- procuring documents
- problems, expectations

Interested stakeholders
- Users
- Management
- Institution
- Financing authorities
Academic / professional success

Success
- Good exams
- short duration of studies
- Quick employment after finishing education
- Highly reputed publications (citation impact)

Library use
- Average time per week spent on using the library
- Number of books borrowed
  - core material
  - special material
- Use of reference desk
- Attendance at user training

How to get the data?
Library use
- automated system
- user diaries
- questionnaire, interview
- university records
- citation impact
- citation index

Exams, duration of studies, employment level
Advantage:
Mostly not relying on attitudes, but on concrete data.

Data for individual users might be hard to obtain.
A positive correlation does not prove that the success is due to the library.

Interested stakeholders:
- Users
- Institution
- Financing authorities
- Management
They are asked:
- to rate their benefits / failures after the visit / use
- to rank library products and services
- to put a financial value on services
- to rate their own skills and competences
- to participate in tests
- to agree giving private data for evaluation programmes

In addition, data about users are collected:
- from the automated system
- from attendance lists
- from institutional records.

Measuring outcome needs users’ cooperation.
### The way to go

<table>
<thead>
<tr>
<th>Definition of mission and goals</th>
<th>What outcome is expected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection of input data</td>
<td>What is provided by the library that could lead to outcome?</td>
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<tr>
<td>Assessment of costs</td>
<td>What MNOs use to achieve outcome?</td>
</tr>
<tr>
<td>Collection of output data</td>
<td>What use is made of the services offered?</td>
</tr>
<tr>
<td>Assessment of quality</td>
<td>In how far does the performance of the library render outcome possible?</td>
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</tbody>
</table>

- Large input / good performance may give the basis for high outcome
- Intensity of use seems to indicate realised benefits

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**The search for an ultimate measure of benefit may be illusory.**

Don Revill
Measuring Impact And Outcome on Users

http://www.uni-muenster.de/ULB/outcome/index.html