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## Putting Library Assessment Data to Work

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# Putting Library Assessment Data to Work

Selena Killick & Frankie Wilson

## Chapter 1: Introduction to Library Assessment

### The purpose of this book

Many libraries appreciate the need for assessment, to improve customers' experience, to support advocacy, or both. Librarians reviewing the literature will find no shortage of books to guide them (e.g. Dobbs, 2017; Priestner, 2017; Showers, 2015) and conference papers to inspire them. The purpose of this book is not to add to the body of knowledge on library assessment, but to address the barriers that most libraries face when considering assessment activities. The central tenet is that there is no need to undertake special data gathering in order to make assessments. Most libraries have huge amounts of data that they have gathered but is sitting on a metaphorical (or in some cases physical) shelf gathering dust, data such as usage statistics, institution-wide survey results, library survey responses and comments books. Using basic skills (all of which can be self-taught from many excellent books within your library and websites) and a small amount of time, every library can put this data to work to improve customers' experience.

### What is library assessment?

Library assessment is the endeavour of determining and communicating how a library is performing, with the aim of driving improvement. There are three key features of library assessment: focus on stakeholders, the goal of improving services to meet stakeholders' needs, and communication of the results and outcomes.

Stakeholders are at the heart of library assessment. They are predominantly library users (and non-users), although assessment extends to determining the performance of the library from the point of view of funders and library staff. Consequently many library assessment tools and techniques are geared towards learning about the needs of users (and non-users) and evaluating how well the library supports these needs, in order to improve library facilities, services and resources.

Library assessment is not undertaken for the sake of it, or for merely monitoring purposes (for example recording the number of people visiting the library each month). It is measurement for the purpose of improving the programmes and service. Library assessment involves a continuous improvement cycle grounded in customers' expectations – data gathering, analysis, interpretation and contextualisation, determining implications for the library, acting to effect improvement and reporting, and finally evaluating the changes made.

Communicating the results and outcomes of those results to relevant stakeholders in a meaningful way makes assessment a powerful tool for advocacy. At one end of the scale such communication involves the standard 'closing the loop' of user research, where the results of the survey, interviews or focus groups are communicated back to the population, along with the actions taken to address issues raised. At the other end of the scale it includes using appropriate evidence to support the case being made to funders.

Communicating assessment findings can help to bring stakeholders together. Customers (those using the services) have very different wants and needs from clients (those paying for the services); often they are directly contradictory. Assessment has a unique and valuable role to play in bringing the customer voice to clients, and explaining the position of the clients to customers.

The tools and techniques used cover the whole gamut of those used in the social science and statistics. Statistical techniques include descriptive statistics (measures of central tendency and dispersion) and inferential statistics (applying probability theory). They can include quantifying queries raised at the service desk, peak times of library website use, return on investment and library learning analytics. Tool used for statistical analysis range from the ever-dominant Excel and data dashboards through to specialist tools such as SAS Visual Analytics and Tableau.

Social science techniques include surveying, conducting interviews and focus groups, observation, usability testing and user experience research. Where qualitative data is gathered, qualitative data analysis techniques are used to process and interpret it. Data gathering tools range from paper and pen and tape recorders to online survey builders (free or subscribed). Analysis tools include sticky notes, through simple word processing programmes, to specialist qualitative analysis programmes such as NVivo.

## Library assessment vs library performance measurement

When deciding the title for this text we debated at length whether we called it 'Putting Library Assessment Data to Work' or 'Putting Library Performance Measurement Data to Work'. As you can tell, we opted for the former.

In 1995, members of the Society of College, National and University Libraries (SCONUL) Advisory Committee on Performance Indicators, supported by the British Library Research & Development Department and Northumbria University, established a biennial conference. The Northumbria International Conference on Performance Measurement and Metrics in Library and Information Services (commonly known as 'Northumbria'; <https://libraryperformance.org/>) attempted to present a new framework for library measurement. With practitioners and researchers presenting the results of the application of scientific research methodologies to management questions arising from actual situations found in libraries, and keynotes focusing on strategic, political and advocacy questions, Northumbria sought to discuss both the results of performance measurement activities, and also the ideas and forms of performance measurement in libraries.

Over the last 23 years this biennial conference has been held in the USA, South Africa and Italy, although the predominant host of this English language conference has been the UK. It attracts presenters and attendees from around the world, particularly the UK, Europe, North America and Australia. Now known by the somewhat shorter title International Conference on Performance Measurement in Libraries (aka 'LibPMC'), the conference remains the 'invisible college' that connects together those in the field – a field generally referred to because of this link as 'library performance measurement'.

In 2006 Steve Hiller at the University of Washington, Jim Self at the Virginia University, and Martha Kyrillidou at the Association of Research Libraries (ARL) set up the Library Assessment Conference (<https://libraryassessment.org/>) as a sister conference to LibPMC. The goal of this conference is to build and support a (primarily) North American library assessment community, by bringing together interested practitioners and researchers to stimulate discussion and provide workable ideas for effective, practical and sustainable library assessment.

Despite a long and committed membership of the ‘invisible college’ of LibPMC, we favour the term ‘library assessment’ as it avoids the connotation with counting things that the term ‘performance measurement’ has never quite shaken off.

## Why every library needs to undertake assessment

Libraries must serve the same agenda as their ‘masters’ when demonstrating their quality, impact, value and worth, so those in education, local government and health have faced the same top down pressures as those working in other public sectors. For example, American public libraries are motivated by the same government drives for greater accountability of public money as other public services (Durrance and Fisher-Pettigrew, 2002).

Within the UK library sector, academic libraries have led the way in striving to demonstrate their quality, impact, value and worth. The harsh economic climate of the 1990s pressed higher education institutions for greater accountability and improved attention to quality. In particular, there was the need to demonstrate whether an institution was meeting its goals and objectives, and whether these goals and objectives were aligned with society’s needs (Kyrillidou, 1998). Universities were required to account for their performance in teaching and research through research assessment exercises and teaching quality assessments (Town, 1998). In turn, universities began to require accountability and attention to quality from their libraries. The Follett report of 1993 identified libraries as playing a fundamental role in the provision of high-quality education, and in the autumn of that year the sector responded when SCONUL highlighted the quality theme at its conference (Sykes, 1996). However, unlike other public sectors, libraries have their own reasons for wanting to demonstrate their quality. The internet and the increased availability of online services in the 1990s facilitated increasing self-sufficiency for library users. Google and Amazon are real competition for libraries, with unimaginable budgets to spend on providing what their customers want. Libraries could no longer be viewed as storehouses of knowledge where people should want to come because libraries are ‘good things’ (Stuart and Drake, 1993).

## Barriers to library assessment

This book is written by librarians for librarians – whether well established in your career or just starting out via library school. It is for librarians who have library data and know they ought to use it, but experience difficulties undertaking appropriate data gathering exercises, analysing the data, interpreting the results, using the results to make changes, or communicating the outcomes. These difficulties may be due to one or a combination of factors: lack of skills; lack of confidence; lack of time; or lack of money.

The largest barrier to embarking on library assessment is ‘paralysis of perfection’ – waiting until there is enough time to do it properly; waiting until you feel confident that you have fully mastered all the necessary tools and techniques; waiting until everything is perfect before proceeding. But that point is never reached, and with all that waiting there is no progress. We always advocate that any library assessment activities should be useful and be used. Data collection without action is not only a waste of time but damaging to the reputation of the library. So, if you have collected library data, don’t wait for the stars to align – use it. This book will show you how. Your library assessment does not have to be perfect. Good enough is good enough, because any progress towards improving your customers’ experiences is better than no progress.

When writing this book we sought case studies from those we knew were using library assessment to great effect. All would (we are sure) admit that their assessment work is not perfect, but all used data to initiate action and so improve the library. Sometimes the action is communicating with

customers why you cannot do something they would like because of technical, legal or financial constraints. But action is action: delivering this message effectively is far more beneficial to the library than the perception that you are ignoring customers' concerns, especially if you have canvassed their opinion.

## Some notes on terminology

### Data, information, knowledge

Throughout this book, we use data to cover both quantitative and qualitative items. A piece of data is a value of a characteristic of something. Data is collected and analysed, and as a result of this analysis becomes information suitable for informing decision making. Knowledge is acquired by exposure to many pieces of information about a topic.

### Quantitative, qualitative

Quantitative data is objective, quantifiable facts, which are measured and recorded in numbers, for example the number of books you have borrowed from the library this year. This data is numerically focused and can be expressed in graphs, charts and tables. Qualitative data is subjective, varying depending on the context of its collection, for example how you felt when you read the last book you borrowed from the library. Qualitative data may be expressed in words, pictures, video and numbers, for example asking people to represent their satisfaction with the library service by awarding one, two, three, four or five stars would record this qualitative data numerically.

### Impact, value, worth

In a library setting 'impact' is the effect a library has on individuals who interact with it and its services (Markless and Streatfield, 2006). 'Value' is an indication of the importance of a library to its stakeholders and can be defined in a variety of ways, including by use, return on investment, production of a commodity, impact and competing alternatives (Oakleaf, 2010). 'Worth' is the importance of a library to its parent institution or society; it is transcendent – the impact demonstrated must be beyond the library and immediate satisfaction, needs or demands, through contribution to less concrete aspects of institutional or societal intent (Town and Kyrillidou, 2013).

### Performance measurement, evaluation

Performance measurement is the process of quantifying the efficiency and effectiveness of past actions in achieving an organisation's goals (Neely, Adams and Kennerley, 2002). There are a number of different performance measurement systems, of which the balanced scorecard (Kaplan and Norton, 1996) is best known. This semi-standard, structured reporting framework covers a small number of financial and non-financial data items, and is used by a management team to track the implementation of a strategy or to monitor operational activities.

Evaluation is the characterisation and appraisal of something's merit. It is undertaken at the end of a significant period of time and is used to judge the impact of a policy, service, programme or activity. Evaluation may compare the results of the appraisal with the original objectives of the policy or service, or may look at what was accomplished and how. The purpose of evaluation is to enable summative reflection in order to inform future decision making.

### Metrics, analytics

Metrics are measures of quantitative data. Performance metrics often focus inwardly on the performance of the organisation, but may include performance against customer requirements and value. Performance metrics are linked to corporate strategy and as key performance indicators are often used to measure performance against critical success factors for the organisation (Neely,

2007). Analytics is the discovery, interpretation and communication of meaningful patterns in data, specifically to improve performance.

Analytics is concerned with why what happened in the past happened, and what will happen next (Park, 2017). Analytics makes use of big data and machine learning techniques, mathematics and statistical modelling.

## A short history of library assessment

Libraries have been collecting performance measurement data and comparing themselves with others for over 100 years. The Association of College and Research Libraries (ACRL) has collected statistics since 1907 providing an historic record of the development and trends in US library collections and usage (Thompson, 1951). In Australia the Council of Australian University Libraries (CAUL) has published its annual statistics since 1953. In contrast, the UK and Ireland focused SCONUL statistics were not developed until 1987 (Creaser, 2009).

Initially the focus of measurement was the comparison of inputs (e.g. number of books added to the collection and staffing levels), with the implication being the more money spent, the better the library (Goodall, 1988; Morgan, 1995). The 1985 Jarratt report on university efficiency recommended the development of a range of performance indicators covering input and output measures, for use within the institution and for making comparisons between institutions. The emphasis moved towards cost effectiveness and performance measures relating inputs to outputs (e.g. cost of a loan) as a proxy for quality and impact (Van House, Weil and McClure, 1990). However, measures of inputs, processes and outputs, or composites of these (Cotta-Schonberg, 1995), are not adequate when evaluating, and so demonstrating the quality of, the impact, value or worth of a library. Such metrics alone cannot determine why a performance gap exists – only the practices on which the metric is based will reveal this (Camp, 1989). The use of performance indicators results in the over-concentration on metrics, because they do not reveal the detail of the processes involved (Town, 1995). Town argued that libraries should be more concerned with performance than measurement, and warned that they were in danger from one of Deeming's seven deadly diseases of western industry: 'management by use only of visible figures, with little or no consideration of figures that are unknown or unknowable' (1998, 83).

Lancour (1951) wrote that libraries should be viewed as progressing through three periods: storehouse, service and 'educational function'. In the 50 years between this statement and the turn of the century, the literature repeatedly celebrated the end of the storehouse period and the move to the service period. However, these were false dawns, with a shift in practice only occurring at the end of this period. During the early 1990s there was a move to mirror this in the performance measures collected: Ford (1989) argued that the only people likely to measure a library's performance by users' needs were the users themselves. Output measures consisting of availability, accessibility and delay were proposed (Thompson, 1991). In addition to output measures, and this user-focused extension of output measures, process data (e.g. processing time for new books) was also included in performance measures (Cotta-Schonberg, 1995).

At the same time, many libraries made the leap to actually asking their users about the quality of the library; a 1995 study found that 81% of UK libraries gathered user feedback (Kinnell and Garrod, 1995). In 1990 the American Library Association had published *Measuring Academic Library Performance: a practical approach*, which provided libraries with a standardised survey tool (Van House, Weil and McClure, 1990), and in 1996 SCONUL launched a standardised survey for libraries to deploy locally (Revill and Ford, 1996). Many university libraries developed their own exit questionnaires for students from general university satisfaction surveys (Lock and Town, 2005).

However, even user satisfaction surveys do not address the issue of performance assessment for quality. Cullen (2001), supported by the work of Nitecki (1996) using SERVQUAL in libraries, proposed that satisfaction with the library service as a whole is more than an aggregate of satisfaction with particular aspects of library provision. Furthermore, when respondents express dissatisfaction in a survey their comments are not helpful because they may only demonstrate that something is wrong, not what is specifically wrong (Whitehall, 1992), or how to fix it, e.g. “not enough books”.

In the early 2000s, a number of libraries expressed the desire for a survey that would provide information to drive improvements in quality, rather than simply measure customer satisfaction. The ARL partnered with Texas A&M University to develop LibQUAL+ in the USA. Built on the SERVQUAL methodology, the LibQUAL+ research team converted this commercial survey to be suitable for the library sector (Cook, Heath and Thompson, 2002). The key elements of LibQUAL+ are its measurement of minimum, perceived and desired levels of service quality (Lock, 2004). Since its inception over 1350 libraries in 35 countries have used LibQUAL+ (ARL, n.d.).

From the mid-2000s there was also a ‘top down’ move from government to incorporate user feedback into official information collected about UK academic libraries – the National Student Survey, run annually from 2005, has a question about students’ satisfaction with library resources.

Throughout the 2000s there was an increasing focus in the literature on demonstrating the impact of libraries (Poll, 2016). In 2003, a joint project between the Chartered Institute of Information Professionals (CILIP)’s Library and Information Research Group (LIRG) and SCOUNL supported 22 UK higher education libraries in developing methods to measure the impact of new initiatives (Payne, 2006). In the USA, the research project Rubric Assessment of Information Literacy Skills (<http://railsontrack.info/>) funded by the Institute of Museum and Library Services was instigated to help academic librarians and disciplinary faculty assess information literacy outcomes (Holmes and Oakleaf, 2013). Major initiatives in the following decade included the Jisc Library Impact Data Project (Stone and Ramsden, 2013) and the Wollongong University Library Cube (Cox and Jantti, 2012), both of which sought to link library use with student attainment.

Methods for assessing library value began to appear in the literature around 2010, the year when ACRL published *Value of Academic Libraries: a comprehensive research review and report* (Oakleaf, 2010). In the following year the values scorecard was presented at library conferences (Town and Kyriallidou, 2013). In the USA, the three-year LibValue study ran between 2009 and 2012, aiming to define and measure the ways in which the teaching and learning, research, social, professional and public engagement functions of an academic library create value (Mays, Tenopir and Kaufman, 2010).

## How to use this book

The previous section may give the impression that every academic library is undertaking broad and deep library assessment activities, and so are continually improving customers’ experience and confident in the future funding situation of their library. However, as library assessment practitioners, involved generally in the profession and with LibPMC and Library Assessment Conference, we know that this is not the case.

The literature reflects the work of the enthusiastic few – those at the cutting edge of library assessment. This book is not aimed at them. This book is aimed at librarians who want to improve the experience of their customers but don’t know where to start.

The introduction to the topic in each chapter will give you the basics you need to start thinking about how you could apply the methods in your library. We hope the case studies will inspire you, and show how the theory works in the real world. Finally, there are lists of further resources in some chapters with selected items that will enable you to deepen your knowledge.

You can read it cover-to-cover or dip in to specific chapters. The only crucial thing is to have a go yourself – put library data to work in your library and see how recycling existing data can result in improvements for your users.

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