THE ASSESSMENT AND ANALYSIS OF MATERIALS AVAILABILITY: A MIXED METHODS APPROACH

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Introduction

The question of the availability of library materials is central to the effective running of a library. Does the library have what its clients want? Can they find or access it? And if not, why not? The analysis of materials availability can thus provide a fundamental measure of performance. It can also deliver valuable information to determine strategies for improvement to library services, for example to collection development practice, discovery system design or information literacy programs. This chapter provides a brief historical overview of materials availability surveys, describes the work which has been done in this area at Curtin University Library, and proposes a model for the further exploration of materials availability which reflects the dynamic nature of today's libraries. The increasingly rapid development of technology and the changing and widening expectations of library clients mean that it is more than ever important for library collections and discovery services to be able to respond intelligently to the needs of library users. The systematic monitoring of materials availability is one way to ensure this is the case. Although the model described was developed in the context of a university library, it can equally be applied to libraries of any size and from any sector.

The main theoretical work in the area of materials availability was done in the 1970s and focussed on print resources and on searches by library clients for known items in the card catalogue (Mansbridge, 1986; Nisonger, 2007). Within a physical library, data could quite easily be collected from clients about whether they found what they were looking for and the reasons why they might not have done so. There have, however, been relatively few attempts

to transfer the principles of this early work to the far more complex electronic information universe and to the new styles of information searching which have come into being with the development of modern 'web-style' library discovery systems (Wells, 2020).

Of course, library catalogues and discovery systems are no longer the only tools that clients use to discover information sources or indeed to access them. Google Scholar, Researchgate, ArXiv, and a myriad of other services all offer alternative discovery pathways. Clients may also access subscribed databases directly, to a greater or lesser extent bypassing library provided technical infrastructure. Nevertheless, library systems and holdings continue to play a major role in providing the information needed for study and research, particularly in tertiary and research institutions. A robust measure of their effectiveness remains an important management tool, and, perhaps more importantly (Town, 1998, p. 81), the monitoring and improvement of performance is an enduring concern.

Work done at Curtin University Library in the last few years has suggested that the current discovery and access environment is too complex to be captured within a single survey instrument (Wells, 2018, p. 16). The present study explores a mixed-methods approach to collecting data on materials availability from multiple sources addressing different aspects of the question. These include qualitative data collected from surveys and focus groups data, alongside analysis of quantitative data from discovery system logs, document delivery requests and catalogue problem reports. These can be combined to create a holistic view of interactions between clients and library collections, and to provide a basis both for a sustainable performance measure and for ongoing control of service quality. There is no single formula that will serve the requirements of all libraries, but practitioners are invited to choose and adapt those measures which are appropriate to local circumstances.

A Short History of Materials Availability Assessment

The beginnings of the systematic study of library availability can be traced back to at least the 1930s (Gaskill et al., 1934). The numerous availability studies conducted since then have been documented in some detail by Mansbridge (1986) and Nisonger (2007). Mansbridge (1986, p. 311) notes that up to the mid-1980s there had been considerable variation in availability studies in respect of data sources, methodology and analytical framework, but that the method developed by Kantor (1976) and Saracevic et al. (1977) was rapidly becoming a standard performance measure both within individual libraries and for benchmarking against other institutions. It was, for example, promoted in a handbook to performance measures for academic and research libraries issued by the US Association of Research Libraries in the mid-1980s (Kantor, 1984).

The Kantor methodology has several distinctive features. First, it differs from other types of availability studies (for example, those based on shelf-lists, bibliographies, items cited in publications by the library's clients, or lists specially prepared by subject specialists) by taking as its source of data actual user search experience as collected through a simple user survey. This ensures that a reliable assessment of client satisfaction with the collection can be reached and that an accurate estimate of both client skills and library performance can be made. Secondly, unlike some other approaches which also rely on data collected directly from client requests (e.g. Van House et al., 1990, pp. 60-71), the Kantor method advocates the checking of responses by library staff as soon as possible after the survey is completed to confirm the reported experience. Thirdly, Kantor, building on the probability based approach outlined by De Prospo, et al. (1973), identified a hierarchical series of non-availability categories, or 'branches', following the logic taken in the search process. A 'failure' might occur at any point, and would be sufficient to prevent the library user from proceeding to the next step. In the method's original form (Kantor, 1976) there were four branches: 1)

Acquisition - the library does not hold the title, 2) Circulation – all available copies are in loan, 3) Library error – e.g. the item is missing or misshelved, 4) User error – e.g. the client misread the catalogue or looked at the wrong place on the shelf. It was then possible to calculate a percentage availability figure for each branch, as well as an overall availability figure, and to target remedial action to improve performance at each stage.

Kantor (1984) later introduced a fifth branch between Acquisition and Circulation to accommodate the case where the client noted down the call number from the catalogue incorrectly. Subsequent studies continued to develop the original model (Nisonger, 2007, pp. 31-32). Ciliberti, et al. (1987), for example, added a 'Bibliographic' failure to capture the possibility that clients were starting from incorrect citations, and also extended the model to cater for subject searches rather than searches for known items, by including branches for 'Matched Query' errors, resulting from a client failing to find the appropriate catalogue thesaurus term for the search they had in mind, and 'Appropriate Title' errors, which occur when users find items matching their search, but they have already read them, or the items are in the wrong language, at the wrong audience level or otherwise unsuitable. The Cilberti approach was later applied by Mitchell et al. (1994). Other studies, including Harris and Garner (1992), extended the Kantor method to explore the availability of serials as well as books.

The formal materials availability study, whether using the Kantor method or not, was developed in the context of print library collections. Later iterations, such as Poll & te Boekhorst (2007, pp. 64-70), acknowledged that the availability of electronic resources is governed by a distinct set of factors, but remained predominantly print focussed. The increasingly wide accessibility of the Internet from the mid-1990s, however, meant that ongoing applicability of existing methods began to be questioned. Kaske (1994, p. 317) was already looking for an availability measure that would take into account the newly improved

ability of patrons easily to search across multiple libraries to whose holdings they might have access through a distributed collection model. As electronic resources began to form a significant part of library collections, the question of measuring the practical availability of these alongside the availability of print materials also began to be raised (Nisonger, 2007, p. 36).

Notwithstanding these reflections at a theoretical level, however, the rapid development of the electronic library and of systems for managing it has in practice militated against the emergence of any consensus in how overall materials availability in the new hybrid print-electronic world might be effectively and consistently measured. Instead, studies have focussed on specific aspects of the problem and/or specific technologies facilitating access to electronic materials. One established method, which has its roots in catalogue success surveys (Gouke & Pease, 1982), has been to examine the transaction logs of online catalogues for search failures (that is, searches which produce zero results), often in conjunction with a broader range of measures of catalogue use behaviour (Peters, 1989; Peters, 1993; Thorne & Whitlach, 1994). Ciliberti et al. (1998) used OPAC transaction log analysis to cross check the results of a Kantor-style survey in those cases where searches were reported as unsuccessful. As catalogue technology developed, transaction log analysis has been extended to openURL link resolvers (Crum, 2011). Investigation of link resolver performance has also been combined with survey or sampling methods (Mann, 2015; Mann & Sutton 2015; Stuart et al., 2015). Other recent studies which have focussed on a single aspect of the materials availability question include Nisonger (2009), which used a citation sampling technique to test the electronic availability of journal articles; and Rosenberg (2015), which analysed the availability of bibliographic references from graduate dissertations.

Building ultimately on early work by Michael Buckland (1975) into the practical problem of making books available to library users, several recent studies have also tried to distinguish between 'immediate' availability as measured by conventional availability studies, and 'later' availability, which takes into account the operation of recall systems and especially inter-library loan (Chaudhry & Ashoor, 1994, pp. 300-301; Gregory & Pedersen, 2003, pp. 286). While many researchers have been happy to confine themselves to a single data source, others have begun to explore questions of materials availability using both quantitative and qualitative data. Nancy Kress et al. (2010), for example, have explored the failure of users to locate known items in the context of the placement of unnecessary interlibrary loan requests using a cognitive workflow technique combined with usability testing.

Materials Availability at Curtin University Library

Curtin University is a large public teaching and teaching institution based in Perth in Western Australia and delivering teaching programmes in Perth, in regional Western Australia and at campusus in Malaysia, Singapore, Mauritius and Dubai. In 2019 the total student headcount was approximately 58,000 (Curtin University, Office of Strategy and Planning, 2019). The University Library maintains physical collections for the use of staff and students in Australia as well as electronic resources available to Curtin clients regardless of location. At the end of 2019 the library's collection comprised some 340,000 physical monographs, 580,000 ebooks and 165,000 electronic journal titles (Council of Australian University Librarians, 2020). Ensuring that the collection is relevant to the needs of clients, easily discoverable and accessible when required is an essential task of the Library's Collections Team.

Curtin University Library has used materials availability surveys as one element of its quality programme for a number of years, and a summary of the approaches used can be found in Table 1.

<**TABLE 1 GOES HERE**>

In 1995 The Council of Australian University Librarians (CAUL) published a materials availability indicator for internal evaluation and benchmarking purposes based essentially on the Kantor model (Taylor, 1995; Poll & te Boekhorst, 2007, p. 68), and Curtin University Library ran this on several occasions between 2005 and 2010. While the CAUL instrument produced valuable results and facilitated clear improvements to library services, it remained focussed on print, and by the end of this period it was clear that the relevance of the survey to actual client use of the library and its collections had sharply diminished (Tang, 2014, pp. 706-707). This realisation led to two attempts at Curtin in following years to develop a methodology which would adapt the earlier process to the increasingly electronic library by investigating the availability of electronic resources as well as print. The emphasis remained on the actual practical experience of library clients, rather than proxy measures such as sampling or list checking. At the same time the data collection itself was moved into an online environment to reduce the amount of staff time required to conduct the survey and facilitate the processing of data.

First, a revised methodology was developed by Karen Tang (2014, pp. 707-708), the Library's Associate Director, Corporate Services. This involved a locally written script, embedded into Curtin's Primo discovery system, which randomly intercepted client searches and invited clients through a pop-up window to take part in a survey. If they agreed to participate and indicated they were looking for a specific item, they were subsequently sent a survey form to complete. The methodology then allowed for the reasons given by responders for not finding items to be later verified by library staff. In the pilot survey that was run over

a three-day period in 2013, however, this step was omitted. Although the number of responders was relatively small, the survey reported an availability rate of 67 per cent (Tang, 2014, p, 708), which is broadly comparable to earlier studies (Nisonger, 2007, p. 40). Running the 2013 pilot survey brought to light several practical problems. Most significantly, it depended on custom programming that was not easily transferrable from one catalogue system to another, the invitation pop-up behaved inconsistently across different browsers and did not work well on mobile devices, the delay between when responders searched for their item and when they completed the survey was likely to reduce the response rate and to make subsequent library verification unreliable.

In 2017, Curtin ran a follow-up to the 2013 pilot (Wells, 2018) This again relied on an in-house script, encoded into the catalogue search box on the Library home page, to invite participants on a randomised basis. This time, however, the invitation appeared in a new browser tab or window with a link through to a survey in Qualtrics. This survey asked respondents for some contextual information about their physical location and enrolment, what they were looking for and whether they found it. If they answered No they were asked to select one of the following reasons:

- The Library does not have it
- It was not clear to me whether the Library has it or not
- It is available electronically but I cannot access it
- It is only available in print but I want an electronic copy
- None of the above [respondents were asked to provide further details]

Responses were then verified by Library staff, and coded accordingly. The survey achieved a disappointingly low response rate, and failed to reach the threshold of 400 respondents recommended by Kantor (1984, p. 44). This was partly perhaps because of 'survey fatigue' in the online environment, and partly because the survey delivery method was in practice

quite cumbersome. The browser tab or window with the invitation and survey often appears to have obscured the catalogue results screen from view, causing some confusion among participants. Because the survey was constructed as part of a research project, ethics approval from participants was required to indicate consent to the data collection and this made the survey itself quite wordy. Moreover, paradoxically, the decision to provide an incentive for people to participate by inviting them to enter a draw for a small prize, may also have added a further discouraging level of complexity. Nevertheless, the 2017 survey reported that 66 per cent of clients had found what they were looking for (Wells, 2018, p. 14), in line with the 2013 pilot. Some acquisitions failures were identified and corrected, while the number of errors related to poor information literacy was relatively small.

Although the 2017 survey only invited responses from people who were looking for a specific known item and who wanted it in electronic format, the results suggested that in fact many respondents were conducting more general searches for works on a given subject or by a given author. Restricting materials availability to known items was thus confirmed as only a very partial guide to client satisfaction with a library's collection. Another shortcoming was the need for searchers to re-identify the item they were looking for after already searching for it in the catalogue. The data provided was not always complete, and it was hard to proceed to verification of the survey response without being sure whether the search as recorded actually corresponded to the search as conducted by the client in the catalogue.

The overall experience of the 2013 pilot and the 2017 Curtin Materials Availability Survey (CMAS 2017) suggested that the survey based approach to data collection advocated by Kantor and others and used successfully in earlier investigations at Curtin was no longer effective. Response rates had also fallen in other library surveys. The increased complexity of library materials and access in a hybrid print-electronic library had made it difficult to construct a simple survey instrument that would capture the detail of either clients'

interactions with library systems or their experience with discovery and location of the materials they were looking for. Nevertheless, there remains considerable advantage in attempting to analyse materials availability on the basis of actual client data.

In September 2018 Curtin ran a considerably simplified survey (CMAS 2018) embedded into the library catalogue search page. This asked a single question, 'Did you find what you were looking for?' allowing for a yes/no response, and also provided a box for feedback. No personal data was collected and no attempt was made to collect information about possible reasons for failing to find desired items. The survey response, however, did contain a referrer URL which replicated the search which had been made in the library catalogue. In recognition that not all clients use the library catalogue as the starting point for searching for information the survey was also placed on a website providing links to the library's most important full-text and indexing databases.

CMAS 2018 was more successful than CMAS 2017 in attracting client responses (and did reach the threshold of 400), and the referrer URLs allowed library staff to verify the availability of items that were reported as not found in a relatively straightforward way, even though they did include reasons for 'failure' as identified by the clients. The 'Yes' response rate was 56.6 per cent. A similar simplified survey (CMAS 2019) was run in April 2019 and achieved a 'Yes' response rate of 59 per cent.

A Framework for a Mixed Methods Approach

The survey used for CMAS 2018 and CMAS 2019 was designed ultimately to form part of a mixed methods approach to the materials availability question. Rather than relying on a single and intricate survey instrument, the project team identified a series of approaches, each of which addresses separate, though sometimes overlapping, parts of the problem, to create a rich and complex overall set of findings (Fidel, 2008, p. 266). Some of these depend on data

collected directly from clients; others, in line with the principle of Killick & Wilson (2017, p. 1) that, whenever possible, assessments should be made from information already held, make use of data already collected by systems in use in the library. At the time of writing none of the identified techniques apart from the simplified survey have been put into practice, and development of the full methodology is a work in progress. Nevertheless, it is hoped that the framework will provide libraries wishing to pursue the concept of materials availability as an assessment measure with a useful starting point.

The framework makes use of a revised categorisation of availability errors based on the Kantor model and amendments to it by Ciliberti, but further adapted to allow both for electronic information resources and for subject searching. (The more neutral term 'error' is preferred here to the 'failure' used by earlier studies.) The types of error are listed hierarchically below, though because of the increased complexity of the search and fulfilment process it may not be possible within the mixed-methods framework to provide a meaningful analysis in terms of Kantor's conception of branching. Investigation of the different types of error has implications for different aspects of library service provision as summarised in Table 2.

A. **Bibliographic Error.** Caused by searching from an incorrect citation, either manually or by following an incorrectly constructed link from an external source such as Google or from an online reading list. Libraries can potentially reduce the incidence of bibliographic errors by improving information literacy if citations have been poorly constructed by clients, or by alerting those responsible for presenting incorrect citations.
B. **Acquisition Error.** Caused by the item(s) required not being held in the library's collection, and by extension, not being available through the library's systems, which might include links to freely available items on the web, and the library's document

delivery networks. Libraries can correct this type of error by acquiring missing resources or by improving alternative access paths for clients.

C. **Inappropriate Search Error.** Caused by the client using search terms or strategies which are not best aligned to the desired outcome. For a subject search this might involve inappropriate choice of thesaurus terms. For known-item searches, depending on the search functionality of the library's discovery system, poor results might be caused by including too much information, by for example cutting and pasting whole citations from external sources. Libraries can provide mitigation through information literacy training and/or by improving catalogue indexing and retrieval algorithms.

D. **Catalogue Use Error.** Caused by the client misinterpreting information presented in the library catalogue or other library systems, for example, searching in an inappropriate discovery scope or index. Libraries can recuce this type of error by optimising catalogue design, and insuring that suitable help and training is available on catalogue use.

E. **Fulfilment Error.** Caused by a desired item being unavailable because in use by another client, -- for a physical item because, for example, it is on loan; for an electronic item because licence limits have been reached. Options available for libraries to improve in this area include purchase or licensing of additional copies for high-use items, and refinement of library processes to predict usage, and to share limited access equitably.

F. **Library Process Error.** Caused when an item is missing or in process, or when a link to an electronic item is incorrect. Libraries can potentially limit this type of error by making to workflows: for example, to improve through-put times, implement closer inventory control and ensure systematic checking of broken links.

G. **System Error.** Caused by a technical problem with access or authentication. This type of error is likely to be temporary and unpredictable, but libraries can minimse the risk of it occurring by close attention to information technology protocols.

H. **Retrieval Error.** Caused when the client misreads the shelf for physical items or misunderstands access instructions for electronic material. Libraries may be able to address this through information literacy training and/or through improvements to catalogue design.

I. **Inappropriate Result Error.** Caused, for example, when the client wants an electronic version, but only print is available, or the client wants print but only electronic is available. For a subject search this error may be caused when the client retrieves items, but these do not satisfy the client's information requirement because, for example. they have already been read or because they are pitched at the wrong readership level. The primary remediation available here is for libraries to expand the materials they hold or to which they provide access.

<TABLE 2 GOES HERE>

The different data sources in the framework are intended to collect different sorts of information as indicated below. The availability error types which are illuminated by each data source are summarised in Table 3. The discussion which follows refers primarily to the information management context at Curtin, but is intended also to inform thinking at other libraries.

1. **Survey**. The 'Did you find it?' survey used in CMAS 2018 and CMAS 2019 was primarily intended to establish a simple overall measure of client satisfaction. However, the fact that the response from the catalogue includes a referring URL

provides a secondary tool for analysing the reasons behind non-availability. Analysis of the search terms used by clients who recorded they did not find what they were looking for allows the library to investigate of most if not all of the identified error types. However, care needs to be taken with interpretation, as it cannot always be certain that the reason for error identified by the researcher is the same as that actually experienced by the client. Acquisition, Inappropriate Term, Circulation and Library Process errors may be fairly easily to establish, but other types of error may not be evident unless the client takes advantage of the opportunity to leave an explanatory note. Bibliographic errors, in particular, may be difficult to spot if clients, as is not uncommon, choose to search for specific items using keywords from the title or author. For the same reason it may not always be easy to distinguish between a specific item search and a search for items on a subject.

2. **Catalogue Transaction Analysis**. The log files from Curtin's Primo discovery system provide a huge volume of data about search behaviour. Most relevant to the materials availability question is searches with no results. Since there may be multiple ways to formulate a search in order to retrieve the desired results, and since in the discovery system environment it is relatively unusual for a search to produce zero results, this type of report cannot be considered to provide a comprehensive measure of availability. However, transaction analysis does provide an indicative measure relating to certain types of search error, and may be useful to suggest improvements to library processes, catalogue design or information literacy. Specifically it can identify Bibliographic errors, where the user proceeds from an incorrect citation, Acquisition errors, Inappropriate Term errors, and Catalogue Use errors, which might arise, for example, from inadvertently searching in the wrong catalogue scope. Preliminary investigations at Curtin have shown the presence of a

type of Catalogue Use error which results from including too much metadata in a search or including punctuation or characters that prevented a direct match. A specific type of Bibliographic error also results from following incorrectly formed links into the catalogue from an external source such as a student reading list. When identified, library staff can trace these back to the originating location and arrange for them to be corrected. The actual number of searches with zero results may be less significant than the causes. Many appear to result from mistyping, and are presumably immediately corrected by the user.

3. **Catalogue Problem Reporting**. Authenticated users of the Curtin Library Catalogue (that is, Curtin staff and students) have access to a help facility within the Availability section of all records for electronic resources. Alongside links which resolve to the full text of journal articles, for example, they see a link labelled 'Report a problem with this resource'. This connects to a web form which allows users to report any problems that they have encountered. The form is imported into the Library's LibAnswers instance together with referring information from the relevant catalogue page and the clients contact details. This enables a member of library staff to investigate the problem reported, take appropriate action and contact the client to provide assistance or ask for clarification. In closing the case within LibAnswers it is possible to add a category code to indicate what type of problem was encountered and thus to some extent reflect the 'failure types' referenced in the Kantor materials availability methodology. (This approach, of course, is not specific to the use of the LibAnswers software, but libraries can adapt it for any customer relationship management tool.) In practice the majority of issues picked up through this process are linking errors within the Primo Central database. Since the 'report a problem' link is only available from within the catalogue and for electronic information resources its

ability to pick up Bibliographic or Acquisition failures is somewhat limited. On the other hand, because the link requires users to authenticate to library systems it would be possible to correlate reported problem types to demographic data such as year level and enrolment data for students, and academic department for staff.

4. **Document Delivery Requests**. Eligible clients who are unable to obtain access to items they require may choose to place requests through the library's document delivery service. The number of requests thus forms a measure of Acquisition errors from the point of view of the library's immediate collection. Document delivery requests may also be placed erroneously for items that are in fact held by the library. In this case further investigation by library staff may reveal Catalogue Use errors or Library Process errors – either the user will have read the catalogue incorrectly (or perhaps failed to consult it altogether), or will have been blocked at an access level, perhaps by an incorrect link. In many cases this component will not provide a comprehensive view of the library's performance because the document delivery service may be restricted to some client groups only (e.g. staff and research students as at Curtin). If, with Chaudhry & Ashhor (1994) and in line with Lorcan Dempsey's conception of the 'facilitated collection' (Dempsey, 2016), we take the document delivery service to form part of the library's fulfilment suite, then document delivery supply times and success rates can also be used as a measure of materials availability.
5. **Focus Groups**. Focus groups are less suitable for generating a performance measure than the four approaches listed above, but can be designed to elicit qualitative data about library clients' experience in discovery information and gaining access to resources. Specifically, libraries can use them to establish clients' perception of gaps in the collection, and identify any difficulties that clients find in formulating searches, interpreting results and making the best use of catalogue functionality.

Focus groups are thus able to provide data to allow library staff to address on the one hand Acquisition and Inappropriate Result errors, and on the other hand Inappropriate Search, Catalogue Use and Retrieval errors. Moreover, unlike the four primarily quantitative approaches, focus groups are also able to take into account demographic data, and thus provide a more targeted analysis in respect of specific client segments. Focus groups are relatively costly to run in terms of staff time – in practical terms it may be mor valuable to use them to explore areas of concern that have been identified through other measures, rather than as a completely independent instrument.

<TABLE 3 GOES HERE>

Conclusion and Implications for Practice

The mixed methods approach outlined above offers an adaptable, practical and sustainable methodology for librairies to assess materials availability geared to the complexities of today's hybrid library services and discovery systems. Compared with the earlier survey-centred approach it loses some ability to gather potentially useful data about client demographics, for example, the location of the clients, and whether they are staff, undergraduates or postgraduates. Moreover, because of its explicitly multifaceted nature this framework does not allow for clear analysis of the 'failure branches' identified by Kantor. On the other hand it gains much in simplicity and consistency. It is neither intrusive for clients, nor a huge burden in staff time to administer. The methodology is inherently flexible, as it no longer relies on a single instrument, but involves a series of analyses that can easily be run on different schedules. Librairis can add new instruments as and when they are

identified, and can easily adjust the data collection to cater for different and evolving library systems technology.

In line with the original aims of materials availability analysis, the framework allows library staff to collect quantitative data that can be used for performance measurement and benchmarking. The basic survey provides a simple overall measure of availability. Data derived from catalogue transaction logs, catalogue problem reporting and document delivery requests can also be used as partial and indicative measures of availability. It would further be possible for a library to combine the measures derived from different inputs, with suitable weighting of each corresponding to local priorities, to form a single generalised metric for performance monitoring. At the same time, the approach collects qualitative data that can be used to inform collection development, system design and information literacy, and facilitate specific service improvements.

Libraries of all sizesd and types can easily adapt the suggested framework to meet their needs. In practical terms, and depending on which measures were chosen for implementation, a library would require the following roles: a) a coordinator or coordinating group to determine which measures were to be undertaken, to establish scheduling, and to analyse outcomes with a view to identifying possible improvements to library services; b) technical and/or systems librarian support to create and embed a simple survey form into the library's catalogue or web page, to extract systems data relating to catalogue transactions and document delivery requests, and to configure the library's catalogue problem reporting system as required; c) librarian support to verify non-availability of items as reported from the survey instrument and from catalogue problem reporting; d) expertise in convening and running focus groups and in collating and analysing the feedback received.

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