

Implementing Rapid Assessment to Evaluate Electronic Resource Subscriptions for an Immediate Cancellation Project

Amy Hughes, Theresa Carlson, Pamela Buzzard, Hannah Caproon, John Doherty, and Janet Crum

Northern Arizona University, USA

Abstract

Electronic resource inflation and flat acquisition budgets are causing many libraries to reduce or cancel electronic resource subscriptions. This paper describes the use of a *rapid assessment procedure* to make time sensitive change or cancellation recommendations to address a half million dollar over expenditure. Borrowing anthropological and public health evaluation methods enabled a small numbered, yet diverse team of librarians to make data and stakeholder informed recommendations.

Introduction

As the pandemic has surged over the past year, many academic libraries have braced themselves for impending budget cuts.¹ In fact, several of these same academic libraries were already struggling with a declining or stagnant acquisition budget amidst rising resource costs,² including Northern Arizona University's Cline Library.

In the academic year 2018–2019, the library's acquisitions budget was just over \$2.3 million, an amount substantially lower than all our peer institutions.³ In this same year, we spent well over \$2.8 million on acquisitions, almost entirely on electronic resources. This over expenditure was made possible by \$500,000 in salary savings from previous years. Aligning our spending with our actual budget required a spending reduction of approximately 20% of our acquisitions budget. To achieve this goal, a small group of librarians were assigned the task of reviewing the library's electronic resource collection and making recommendations to the Dean and University Librarian on which resources to cancel.

From the start, the group had two main objectives as we worked towards meeting the budget goal. First, we wanted to collect and include feedback about our acquisition holdings from key stakeholders, faculty and subject librarians, in the analysis. We were committed to involving both groups in the decision-making process because we wanted to understand how they were using the collections. Second, we wanted to complete a thorough electronic resource collection analysis. This would not only help us to understand how the existing collection was supporting teaching and research, but it would also keep us from relying solely on cost-per-use metrics. To meet these objectives and achieve the budget goal, we adopted a Rapid Assessment Procedure (RAP), a data collection tool common in social science and public health research. This paper describes our use of RAP to evaluate our electronic resource (hereinafter e-resource) collections to realign the library's acquisition spending with the acquisitions budget.

Background: Northern Arizona University—Cline Library

Northern Arizona University (NAU), located eighty miles south of the Grand Canyon, is one of three state universities in Arizona. NAU has eight colleges and offers 95 undergraduate degree programs, 67 graduate degree programs, 20 doctoral programs, and numerous undergraduate and graduate certificates. Student enrollment has grown in recent years, peaking in 2018 with 31,073 part-time and full-time undergraduate and graduate students.⁴ Cline Library is the sole library on campus, supporting and serving international and multidisciplinary programs and research.

In early 2019, a library team consisting of members from two different library departments was formed by the dean and university librarian. Although collection management had been the responsibility of librarians in Content, Discovery, and Delivery Services (CDDS), several vacancies in the department created a need for others in the library to assist with the e-resources review project. Four team members were part of the Teaching, Learning, and Research Services department (TLRS): three subject librarians and the department head. A few months into the project we hired a librarian for the e-resources position. This librarian and the department head of CDDS completed the team. The TLRS department head took the lead on all communications, and a TLRS subject librarian was assigned as the project lead.

Our team of six librarians took the name of the E-Resources Group because we were specifically looking at our e-resources, not the entire collection. While our team had a diverse range of skills and experiences, none of the team members had any recent e-resource experience. Nevertheless, the team was charged with identifying at least \$500,000 worth of e-resource content to cancel over the next several months so that the cancellations would affect the budget within a two-year window. As mentioned previously, the driving factor behind the charge was realigning the library's acquisitions spending with the library's actual acquisitions budget.

Group Charge and Project Management

The E-Resources Group was given a group charge and developed specific objectives to meet that charge. One of our objectives included a comprehensive e-resource collection assessment. This required collecting, updating, and analyzing our e-resource statistics. A second objective of this was to collect feedback from faculty and subject librarians to learn more about how existing e-resources support curricular and research needs.

In addition to budget woes, the library had recently transitioned to a new management system, Ex Libris Alma, which presented additional challenges, including large gaps of information and errors in the data. We quickly realized that we had several unreliable reports and thus we needed to collect statistics directly from vendors to compare our statistics from Alma with the vendors' reports.

Project management tools or strategies were necessary to manage the range and complexity of this work. At the time, the library was exploring Prosci's ADKAR[®] Model⁵ as a change management structure, so we originally tried to fit our needs within this model. We also discussed but lacked consensus on project management tools, trying first Microsoft Project to track activity, then later transitioning to Microsoft Teams. Neither tool was a good fit for the group; in fact, the overlap created more work initially. Additionally, the simplification and compartmentalizing of tasks created an opportunity to lose sight of the bigger picture. These initial setbacks prompted the group to start thinking differently about how to get the work done.

CHARGE:

The 2019–2020 E-Resource Group will:

- Conduct a collection assessment to align the collection with budget realities.
 - In consultation with stakeholders evaluate library collections to discover how existing e-resources support curricular and research needs.
 - Collect and analyze e-resource statistics.
 - Using the scoring matrix make acquisition or cancellation recommendations to the Dean.

Create and coordinate strategies for communicating with stakeholders.

At the end of the FY the group will update the charge and membership as needed.

Fortuitously, two of the librarians in the group, a social science librarian and a public health librarian, had experience with rapid assessment and noted the parallels between the project's needs and the principles of RAP, particularly the emphasis on incorporating stakeholder perspectives and the use of different types of data. The approach made sense, and the group decided to apply it as a project management tool to assess the e-resources collection expeditiously.

Rapid Assessment—A Project Management Approach

In the past forty years, rapid assessment techniques have evolved and expanded. First used in rural development and rural agricultural projects, rapid assessment today has become a mainstay for several disciplines. It is a well-regarded research and data collection tool that is used to address time sensitive public health and health-care related projects.⁶

Key aspects of a rapid assessment procedure (RAP) make it ideal for framing a time sensitive project in need of an attainable solution. As outlined by Pearson and Kessler, RAP is investigative and process-oriented.⁷ The authors also note that RAP, applied as a framework, can be used to examine situations holistically, include perspectives of multiple stakeholders, and triangulate several data collection methods. Perhaps its greatest benefit is that enables researchers to develop an initial understanding of a situation in a short amount of time. In fact, the initial assessment that is part of RAP is similar to the way that librarians conduct a community assessment in order to learn about their stakeholders.

A rapid assessment procedure requires that researchers look holistically at the situation initially to understand what resources and restrictions exist. For us, this initial step created an opportunity to objectively identify skill sets among group members. Our adaptation of a RAP included what we refer to as an environmental scan and began with creating a list of information we needed. The list of information needs, such as updated user statistics, immediately became tasks with quick deadlines.

Furthermore, RAP relies on the various skills and experiences of an interdisciplinary team.⁸ Importantly for our group, it helped disperse notions of authority, which was critical since two department heads were on the group and neither was officially leading the project. Recognizing the diverse skill set of team members from the start enabled an efficient delegation of tasks, which were assigned based on an individual team member's availability, skills, and interest. For example, two of the team members crunched numbers and used Excel spreadsheets to examine user data. The librarians with research experience developed the surveys and looked for trends across the data. Applying a rapid assessment procedure made the project feel more authentic and research-based rather than existing as a temporary project team.

Data Collection and Analysis

RAP encourages and enables both quantitative and qualitative data collection. Collation of existing data began over the summer and included usage reports, cost-per-use analysis, librarian surveys and accreditation and program information. We pulled data from our library management system as well as from our vendors to compare usage. Using our institution's faculty reporting system and Web of Science, we identified the journals that faculty published in and cited most. We reviewed course-embedded LibProxy links in the university's course management system for the past three years to determine what products (e-books, digitized media, or articles) were being used in classes. We also compared our holdings to peer institutions and monitored discussions of cancellation decisions on SPARC and individual library websites. All of this information was combined using spreadsheets so that data was quickly analyzed. A shared Google Drive was used to compile our data on multiple spreadsheets, with data collection ongoing throughout the fall semester.

Stakeholder Engagement

Community engagement took place simultaneously with quantitative data collection. While usage statistics weighed heavily into our analysis, numbers alone do not help to create a collection that supports the overall curriculum, and statistics can easily be misinterpreted. Smaller programs with fewer students and researchers are unlikely to compete with large enrollment courses that require use of a specific database, for example. Thus, qualitative data was collected via meetings with departments, individual exchanges (via email, Listservs, or in person) with faculty and librarians, faculty surveys, subject librarian surveys, accreditation reports and requirements, and in some cases program and course descriptions. In addition to these varied data points, we also reached out to other librarians who were experiencing similar large-scale e-resource reductions.

Involving key informants within a community was another aspect of RAP that we intentionally embraced. Although the E-Resources Group was an interdisciplinary team, we needed to work with the subject librarians who had expertise in areas that the team did not. Using Qualtrics, we created an online survey about the library's e-resources and asked the librarians who were subject experts to respond with their knowledge of specific resources. The goal was to help us learn about how a particular resource was used for research or to support the curriculum. We also hoped to collect information on the history of when and why we acquired a particular resource. For example, if a resource was required because it was requested for a class, we asked whether it was still necessary for that class. This was also helpful for cancelling the automatic renewal of individual journals that had been requested by faculty who were no longer with the university.

We sought faculty input in three main ways. First, we identified key individuals who represented their departments both informally (i.e., these individuals were influential in garnering support for the project) and formally (i.e., department chairs or member of the University Library Committee). The subject librarians were asked to help identify informal connections. Second, we presented at administrative meetings and department meetings across campus. The team member responsible for communication also handled all the logistics for scheduling these meetings. He then provided 15–30-minute presentations about the library's acquisition budget and our need to align acquisitions spending with the library's actual budget. He led a total of 44 meetings in a six-week period. At each of these meetings a group member joined to take notes. The presentations were informative and included a handout that illustrated cost-per-use for several key journals as well as a chart depicting the library's budget and spending. The meetings also served as way to inform faculty about the upcoming survey, and thus included a plea to respond to the survey. Finally, our third method was through the faculty survey.

RAP emphasizes the use of surveys as an expeditious way to collect data, and indeed, the most efficient way to collect faculty feedback on specific resources was through a survey. We worked with a trained sociologist with expertise in survey design to develop and structure a survey in a way that allowed for rapid analysis. The survey was also administered through Qualtrics and made use of skip logic to deliver between eight and ninety questions, including several opportunities for comments. The survey started with two general questions. The first question asked them to identify their primary department. The second question asked about their teaching and research workloads. Several questions specific to e-resources included Likert-scale questions. For example, for each e-resource, we asked about the level of importance for teaching and research (from "essential resource" to "not used at all"). A related question asked about frequency of use for each resource. Open-ended questions were also asked. For example, we asked faculty to list their top five journals. All questions included an opportunity for comments.

The survey was distributed through the faculty listserv at the end of September, and participants had a two-week window to complete it. Our access to the listserv, and to surveying faculty in general, is limited, so we were only able to send one survey invitation and one follow-up message. At that time, the

listserv reached 1180 emails and we received 691 unique responses, for a response rate of 59%. All 46 departments were represented in the feedback, although with varying levels of participation. The departments of Sustainable Communities and Women and Gender Studies had the lowest participation levels with only one faculty from each department responding. However, these are two of the smaller departments on campus and many of the faculty teach in more than one program. The Education (72) and Biology (61) departments had the highest levels of participation. In all, over 4200 data points were collected.

Evaluation Methodology

We used a scoring matrix to collate all our data points. The scoring matrix was borrowed from the “Electronic Resources Renewal Scorecard” developed and used by librarians at the University of Vermont’s Howe Library.⁹ We modified the scorecard to better fit our situation since we were making recommendations to cancel resources. The percentages, however, remained the same. Quantitative data, such as usage statistics (scored differently depending on format) and faculty publications and citation patterns/data pulled from Interfolio’s Faculty 180 and Web of Science, made up 40% of the score. Two areas of qualitative data were combined for a total of 60%, of which 30% included faculty input. The other 30% included feedback from subject specialists from the librarian survey, information from program accreditation requirements, peer comparison, overlap analysis, alternative product comparisons, and performance with our library management system (i.e., how well did the discovery tool capture content from other database vendors). We discuss how each datum was weighed to produce a percentage using our scoring matrix elsewhere.¹⁰

Findings

According to the feedback we received at department meetings, many of our faculty knew little about the cost of e-resources; once they were shown annual costs and cost per use, they expressed sympathy and outrage. Interesting themes emerged from informal conversations with individual faculty members, meetings with academic departments, and comments from the survey. Comments about supporting independent publishers, supporting open access, and purchasing or retaining diverse publications were echoed throughout departments. Another strong theme from the department meetings was concern over the time it takes to request and obtain articles if access to those articles from the library’s website ceased.

Faculty survey responses yielded a list of 1672 journal titles deemed essential for their teaching or for their research. Unsurprisingly, a few journals were mentioned repeatedly: Nature, Science, Ecology, and *JAMA: The Journal of the American Medical Association*. The more than 300 unique open-ended responses described concerns about research productivity and overall efficiency due to lost access to resources. Document Delivery Services, more commonly known as interlibrary loan, was frequently mentioned as an invaluable resource.

Furthermore, subject specialists were not always aware of the resources that were purchased for their areas, and consequently had little input on how those resources were used in the curriculum. This may be due in part from the shift of collection management responsibilities away from Teaching, Learning, and Research Services’ librarians to individuals in CDDS in 2008.

Finally, the E-Resources Group thought that a 20% reduction of our e-resources would significantly affect faculty and students’ information needs. However, through our rapid assessment process, we were somewhat surprised to discover that many of our resources were unneeded.

Limitations

Although the RAP proved beneficial in our case, at times it felt like we were inundated by the workload. None of the group members were given work release to complete the charge.

Discussion

The result of this activity enabled the team to learn quickly and make informed decisions. Indeed, informed judgement is a critical component of RAP, and one that we relied on since the E-Resource Group was making recommendations for decision-making. In our case, the university and library dean was the final decision-maker on what resources were ultimately cancelled.

The triangulation of data was critical towards making recommendations. In one case, the process caught a calculation error that would have otherwise gone unnoticed. This was the case with the online version of the *Oxford English Dictionary*. While the initial quantitative data showed low use, faculty feedback was in strong support of keeping the product. When data did not align across our measures we would investigate further. Ultimately, the culmination of multiple independent yet interrelated data was the crux of our ability to make informed recommendations. We felt very confident in our recommendations.

To our knowledge, we are unaware of other librarians using a rapid assessment procedure as a project management tool to conduct a collection evaluation. We located one article that specifically tied RAP to an evaluation of resources, Manda's 2005 article, "Electronic Resource Usage in Academic and Research Institutions in Tanzania."¹¹

Throughout this process the E-Resources Group learned a lot about faculty needs and academic programs on campus. Having this process in place helped to keep our own preferences for specific resources in check, which was an initial concern since four group members were subject librarians. Ultimately, using a rapid assessment procedure helped the group achieve the budget goal to reduce acquisitions spending with very little backlash from faculty.

Conclusion

Key aspects of rapid assessment made its approach ideal for our project. These included: time sensitive; action-oriented; community engaged; utilizes existing data as well as emerging data; complements ongoing activities; uses multiple methods/data sources/levels of assessment; collects locally relevant data from local experts; focuses on contexts/situations and individuals; and is ethical.

Our experience supports using a rapid assessment procedure as a project management approach and tool to evaluate e-resources to make cancellation recommendations. The ability to quickly collect and analyze information from various data points is invaluable to libraries with little time to make critical decisions.

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Endnotes

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