

Print Monograph Collection Evaluation in a Small Academic Library

In Preparation for Large-Scale Weeding

Elizabeth J. Fortner

Valdosta State University

Abstract

The Main Collection of circulating print monographs at Savannah State University's Asa H. Gordon Library has not undergone large-scale weeding in some time, although such a project has been proposed in recent years. This collection currently contains many outdated and worn materials and occupies a significant amount of space, some of which could potentially be repurposed into more collaborative areas for students or to house new technologies. To focus future deselection efforts in a cost-efficient and feasible manner, an index score based on relevancy, currency, and usage will be determined for each Library of Congress (LC) class in the collection. This research will identify which LC classes in the Main Collection are most in need of weeding, as well as provide information about the nature of the items in each LC section. This will be accomplished by individually scoring a random sample of books and averaging the scores for each LC class. A pilot study was conducted on one LC class, the Qs, to test the methodology. After scoring of all classes is completed, the classes will be ordered by index score to show which sections are most in need of weeding and updating based on their current holdings. An overall score for the collection will also be determined by averaging the scores for all LC classes, to generate a measure of the overall collection's relevancy and quality. This process will help staff at the Gordon Library make data-driven decisions regarding prioritization of different LC classes for weeding and will also provide hard numbers for assessment purposes. Additionally, staff at other libraries may become better informed in their own planning of evaluation and weeding projects by reviewing the case study and reasoning presented by this research.

Keywords: Weeding, deselection, collection evaluation, collection analysis, academic libraries, repurposing space, cost-effective

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In Preparation for Large-Scale Weeding

Savannah State University (SSU)'s Asa H. Gordon Library boasts a Main Collection of over 61,000 circulating print monographs. This collection is well situated to undergo evaluation and weeding, in part because it was recently the subject of a major inventory project during which its catalog records and physical volumes were cleaned up, i.e., records corrected, added to the catalog, and/or marked Missing as needed, physical books put in correct order on the shelf, incorrect spine labels fixed, etc.; therefore, the books and records are largely in order. On the other hand, the Main Collection has not undergone large-scale weeding in some time, although such a project has been proposed in recent years. This collection, while containing many highly significant and useful resources used by students, faculty, and staff, also currently contains a number of outdated and worn materials. The Main Collection also occupies a significant amount of space, some of which could potentially be repurposed into collaborative areas for students or space for new technologies.

According to one longtime Gordon Library employee, withdrawal of collection materials—a process which is conducted in accordance with University System of Georgia standards for disposal of state property—mainly occurs on a case-by-case basis when individual damaged items are brought to Technical Services staff by employees (Anonymous, personal interview, October 23, 2015). While as-needed weeding sometimes seems adequate or even necessary for various reasons (limited time for larger projects, etc.), there are several reasons why conducting large-scale weeding in an academic library may be wise. Doing so judiciously helps increase the overall currency and relevancy of the materials, making the catalog and collection easier to work with and more valuable to patrons, as users avoid having to sort through

outdated and worn materials to find what they need. It also helps identify areas for future collection development, while drawing down print holdings to make the best use of physical space to meet patron needs. Given the shift to electronic access for many materials, decreased volume of stacks leaves more room for collaborative learning spaces and technology (Mears, 2014). Murphy (2013) also references the spatial benefits of weeding, noting the more user-friendly nature of pruned-down, streamlined collections; she states of decreased crowding within the book stacks that “a more inspiring and motivational learning and discovery environment is created by . . . calm ‘white’ space” (p. 266). An added benefit is that collection evaluation can provide important data for supporting budget needs, advocacy, and strategic planning (Guimaraes & Luther, 2016).

In the past, many libraries have shied away from weeding very heavily, due to published standards and formulas recommending minimum or acceptable collection sizes. However, in recent decades there has been a shift within higher education and library evaluation away from prescribed numbers of volumes and toward a focus on outcomes and benchmarking (Association of College & Research Libraries, 2011). Additionally, removing print volumes, while still an act to be carried out with great care, has become less contentious than it once was with so much information now online, as well as fast and easy-to-navigate shared borrowing options available to patrons. In accordance with this thinking, the collection development policy of the Gordon Library specifically endorses and mandates regular weeding. The policy includes detailed weeding indicators such as (with caveats): superseded editions; duplicates over 10 years old; items in poor physical condition; and outdated or inaccurate science, technology, and business materials (McMillan, 2012, pp. 7-8).

To focus future deselection efforts at the Asa H. Gordon Library while working within a climate of unpredictable and sometimes tightened university budgets, an index score based on relevancy, currency, and usage will be determined for each Library of Congress (LC) class in the collection. These index scores will serve as a means of conducting a preliminary collection evaluation, also sometimes referred to as collection analysis. The scores will be calculated by individually scoring a random sample of books and averaging the scores for each LC class. The classes will then be ordered by index score to show which sections are most in need of weeding and updating based on their current holdings. An overall score for the collection will also be determined by averaging the scores for all LC classes, to generate a measure of the overall collection's relevancy and quality. The term relevancy refers to a book's relation to the mission of the library and the larger University; as the Gordon Library Collection Development Policy lists "materials to support the current teaching program" of the University as the first priority for library materials (McMillan, 2012, p. 3), items pertinent to teaching subjects will be given special consideration during the evaluation process.

This process will help staff at the Gordon Library make data-driven decisions regarding prioritization of different LC classes for weeding, provide information about the nature of the items in each LC section, and also provide hard numbers for assessment purposes. Additionally, staff at other libraries may become better informed in their own planning of evaluation and weeding projects by reviewing the case study and reasoning presented by this research.

Literature Review

Historical Methods

Historically, methods of collection evaluation to determine candidate items for weeding have included checking records for lack of circulation and inspecting books for poor physical

condition (Larson, 2012); while user surveys, counting items, and librarian shelf scanning of physical items have helped guide both acquisitions and weeding (Arizona State Library, Archives & Public Records, 2015).

Automated Evaluation Tools

Looking to current best practices in the field, automated tools are an important aspect to consider. A number of commercial and open-source products now exist to aid libraries in evaluating collections, including print monograph holdings. Lugg and Fischer (2008), as well as Ferguson (2015), advocate the benefits of a rules-based methodology to evaluation and deselection and the use of automated collection analysis tools to make rules-based approaches faster and easier to carry out. Ferguson lists seven such tools currently available for academic libraries, and Machovec (2014) gives in-depth information about these same seven tools: Sustainable Collection Services (now acquired by OCLC and offering the GreenGlass deselection web application [OCLC, 2015a; OCLC, 2015b]); OCLC Collection Evaluation (now WorldShare Collection Evaluation from OCLC); Intota Assessment from ProQuest; the INN-Reach Union Catalog by Innovative; Ebrary Title Matching Fast from ProQuest; and one open-source tool, GIST Gift and Deselection Manager (GDM) developed by SUNY Genesco. (Another automated collection evaluation tool is collectionHQ, but this is geared toward public libraries [NSDesign, 2016].) Machovec compares features of each of the academic library-oriented options and mentions cost considerations; he notes that the only free option, GDM, requires “local technical and programming expertise” (p. 71), as unlike with the commercial products, technical support is not provided with this software.

WorldCat

Another free collection evaluation route involves the use of OCLC's WorldCat to compare sample items from an institution's collection to items at other libraries, as proposed by White (1995; 2008) and Lesniaski (2004), and as used in the research described by McMinn (2011). Lowe and Stone (2010) clarify, however, that the methodologies proposed by White and Lesniaski are more suited to focusing acquisitions strategies rather than identifying titles for weeding. Additionally, Kohn (2013) states that the WorldCat interface has changed such that White's method is no longer possible (p. 88). Brewer (2006) explains a way of using WorldCat to identify holdings unique to a particular library's collections, which could aid in evaluating monographs for weeding purposes; however, a look at the current WorldCat interface (OCLC, 2001-2015) seems to indicate that Brewer's technique is also no longer supported. This may or may not be related to the fact that OCLC now offers similar functionality through its commercial product(s). Regardless, an idea that remains viable is the concept of using random sampling to conduct initial collection evaluation, as proposed by several of the WorldCat methods.

Other Evaluation Options

Many effective evaluation methods do not require the use of WorldCat or any special deselection tool. The conspectus method, a term used to describe multiple protocols developed for evaluating a collection quantitatively based on the number of volumes and "the recency of books," has been used for decades; and while it was once supported by online tools, the procedure can be used on its own, according to Kohn (2013). This technique and its variations may be better suited to larger libraries though (p. 88). Another method Kohn addresses is analyzing student bibliographies to determine if the library owns the materials students are citing in their papers. However, aside from the logistical difficulty of obtaining bibliographies for

analysis, this is another type of evaluation better for guiding future acquisitions rather than identifying items for weeding (not to mention, as Kohn notes, this process defines desirable books as those actually being used by students, which is problematic for several reasons). Interlibrary loan (ILL) request records may also be reviewed as a collection evaluation method, to look for gaps in the collection (Avery & Harker, as reported in Wiersma, 2015a), but this approach is yet another better suited to informing acquisitions decisions as opposed to weeding.

Harnessing the ILS for pre-weeding evaluation.

Way and Garrison (2013) specifically address pre-weeding evaluation projects and propose beginning by running a system report based on some criteria to narrow the items to be reviewed. Some integrated library systems (ILSs), such as Sierra from Innovative and Alma from Ex Libris, include analytics components that offer collection evaluation support. For libraries without such functionality, Microsoft Access Reports or other reporting software linked with an ILS can generate data for assessment purposes. Zuber (2012) suggests patron search statistics are one possible measure to consider when evaluating books; running a report showing search counts for items might require an ILS that provides analytics from its online public access catalog (OPAC). Ward (2016) submits books' acquisition date and whether a title has been placed on reserve by teaching faculty within some timeframe (he uses eight years) as "automatic keep criteria," i.e., standards that automatically eliminate books as weeding candidates, thus narrowing the list of titles needing further evaluation. Arbeeny and Chittenden (2014) describe spreadsheet filtering of an ILS-generated report exported to Microsoft Excel as a way to streamline evaluation of candidate titles. They suggest filtering by title keywords such as *today*, *future*, and *Soviet*, which can indicate datedness of materials that would merit weeding, as well as filtering by criteria such as publication year and whether items are foreign-language materials.

Lugg and Fischer (2008) suggest beginning pre-weeding evaluation by running a list of titles that meet certain inactivity and age parameters, such as “circulating monographs with an imprint date of 1990 or earlier that have not circulated within the past ten years” (p. 75). Age of items and usage are two common measures of collection evaluation seen in the literature, and while an item’s publication date is fairly straightforward, there are multiple ways of determining usage. The Arizona State Library, Archives and Public Records training guide (2015) explains how to calculate “turnover rate”—number of items in the collection divided by number of circulations within a given time period—as a measure of a collection’s use (p. 5). Dinkins (2011) describes a usage measure similar to turnover rate: the proportional use statistic (PUS), which deals with subject areas’ “percentage of total holdings circulated divided by [their] percentage of total holdings in a collection” (p. 127). Zuber (2012) suggests formulating an algorithm based on book age and use to establish materials comprising the “core collection”—which should generally be retained—of a larger collection. Kohn (2013) mentions also looking at the unique books used in each section, to identify items that have received no use within a given period (p. 85). Borin and Yi (2011) recommend including in-house use statistics, if available and appropriate, when compiling usage measures.

Evaluating quality and relevancy of materials.

To judge books’ relevancy to institutional mission, which for academic libraries typically centers on supporting a college or university’s academic programs, of course it is important to look at what subjects and courses are being taught. Guimaraes and Luther (2016) also suggest taking into account enrollment numbers for different subject areas to help determine which parts of the collection should retain more breadth and depth of coverage.

Another common evaluation method is using an expert source for guidance in judging the quality of material content. While the librarian's expertise and professional opinion is important, librarians cannot be specialists in all subjects; and seeking informed outside opinion also helps limit bias in evaluation and deselection processes. Most library and information science (LIS) literature on the subject of academic library weeding recommends soliciting faculty review and feedback on deselected items before final removal from the collection, as faculty are in a position to say which materials are valuable and relevant to subjects they teach. Handis (2007) notes that it may be difficult for teaching faculty to find the time to review materials and that, depending on the timetable for an evaluation/weeding project, incorporating their input may or may not be feasible. However, Kohn (2013) and Murphy (2013) share successful case studies wherein faculty were consulted earlier in the process than final review, i.e., by being e-mailed lists of candidate titles for weeding based on age and usage, prior to any deselection activity.

Lugg (2012) describes the Thomson-Reuters *Book Citation Index (BCI)*, part of the company's *Web of Knowledge* database, as a possible tool to measure books' impact in their respective fields through citation analysis. Other frequently-cited sources of general expertise on book quality is "best lists" or databases, such as *Resources for College Libraries (RCL)* or *Choice Reviews Online*, both respected databases of recommended titles for academic libraries. The *Choice* database goes back to 1988 (Lowe & Stone, 2010, p. 72), while *RCL*, formerly known as *Books for College Libraries (BCL)*, has an even longer history and is comprehensive, now incorporating the online Bowker Book Analysis System and *Books in Print* bibliographic database. Farber (1997), in a white paper currently featured on the ACRL website, raises concerns with using superseded editions of "best lists" for evaluating materials' current importance to a collection, due to the high level of change from edition to edition. With the

online incarnation of *RCL* and *Choice*, this is probably not an issue, but the recommendation against using outdated print “best lists” as tools for modern evaluation is clear. Kohn (2013) also cautions against using as evaluation tools the same “best lists” utilized in selecting acquisitions, as doing so would invalidate results (she cites Aguilar, 1986, as originally pointing this out).

Choice Online, *RCL*, and *BCI* all require subscriptions for access, so cost may be prohibitive to using these resources. Short of the more time consuming options of looking up reviews for individual books in various databases and journals or consulting faculty for initial book review, other options for obtaining some objective measure of items’ quality based on content are using different academic departments’ accreditation lists as a type of “best list,” as mentioned by Lugg (2012), and comparison to holdings of peer institution libraries. University of North Texas librarians asked academic departments to identify “current and aspirational peer institutions” so that holdings in different subjects could be compared to those of other schools’ libraries via OPAC (Avery and Harker, as reported in Wiersma, 2015a).

Future access considerations.

Most LIS studies recommend considering multiple criteria when evaluating in preparation for deselection; careful decision making is crucial when conducting evaluations that will affect the future availability of materials for users, and libraries must also be concerned with preservation of the scholarly record. Woolwine (2014) encourages a conservative approach, stressing the value of retaining access to multiple editions of certain works and cautioning that quality of metadata for and stability of access to electronic versions should be considered when deciding if e-resources are acceptable replacements for print titles. Alternatively, Oliva (2016) strongly endorses e-books as a substitute for little-used older print materials that the library does not want to simply discard, as a way of cutting down on shelf space while retaining some access.

Way and Garrison (2013) point to the usefulness of checking holdings against those of other libraries within consortiums “to maintain access in the state” (p. 287); others simply recommend checking whether an item is available via ILL (Esposito as reported in Wiersma, 2015b; Oliva, 2016). Lugg and Fischer (2008) advocate considering a “withdrawal risk factor” (WRF) and an “access cost factor” (ACF) for items, determined based on the availability of an online, digitized version of the same or an equivalent work and the availability of the same item for purchase, such as via online used booksellers like Alibris and AbeBooks. Both the WRF and ACF are index scores, suggesting the use of such multivariable measures to evaluate collections.

Scope of evaluation efforts.

In addition to analyzing individual books and compiling figures to rate the collection as a whole, many researchers also evaluate smaller units of collections. Murphy (2013) and Esposito (as reported in Wiersma, 2015b) used academic departmental divisions to select appropriate Library of Congress call number divisions as units for evaluation, while other library literature supports the use of broader subject divisions (Esposito, as reported in Wiersma, 2015b). Similarly, Kohn (2013) assigned appropriate call number ranges to individual courses and then evaluated the books in each of those ranges. All of these approaches are intended to focus on cultivating high-quality, relevant resources to support academic programs at the teaching institution. Researchers may choose whichever units seem appropriate for their purposes.

Definitions

1. The terms “weeding” and “deselection” are used interchangeably in this research to mean “the practice of discarding or transferring to storage excess copies, rarely used books, and materials no longer of use” (definition given by H. F. McGraw, cited in Evans and Saponaro, 2005, p. 296).

2. The term “large-scale” in relation to weeding is used herein to mean systematic weeding of entire collections or large sections of collections—as opposed to on-the-fly, case-by-case weeding, wherein items are only deselected when found to be damaged or outdated in the course of other activities.
3. Throughout this research, the terms “sections” and “classes” may be used synonymously to refer to the LC classes (i.e., all books beginning with a particular letter in the LC classification system) in the Gordon Library’s Main Collection.
4. “Items” in the Main Collection mean individual item records in SSU’s library database with a location listed as the Main Collection stacks area. Each item record corresponds to a single physical volume with its own barcode. For purposes of this research, the terms “books,” “items,” “volumes,” and “holdings” may be used synonymously to describe the item-level units within the Main Collection.
5. Although the meanings and scopes are technically different, the terms “database,” “ILS” and “Voyager ILS” or “Voyager,” and “catalog” or “library catalog” may all be used in this research to refer to the general body of computerized data and records on the Gordon Library’s collections. The catalog, available freely online, contains only data on the items themselves and is synchronized with the larger database/ILS, while the database/ILS also contains borrowing data, including dates of historical checkouts, patrons who have currently or previously checked out the book, etc.

Purpose & Objectives

The primary purpose of this research is to evaluate the Asa H. Gordon Library’s Main Collection—to gain information about the nature of the items in each LC class and identify which classes are most in need of weeding to inform and direct future weeding projects. If

published, the results of this research will also serve to inform the larger LIS community by providing a case study and background information.

The main objectives of the study will be to generate index scores for each LC class in the Main Collection based on the relevancy, currency, and usage of currently-held items and then to rank the LC classes by these index scores to show which sections are most in need of weeding. A secondary objective will be to generate an index score of the relevancy, currency, and usage of the Main Collection overall by averaging the scores of the individual LC classes.

Research Questions

1. (*Main question*) Based on relevancy, currency, and usage of books in each section, which LC classes in the Main Collection of the Asa H. Gordon Library are most in need of large-scale weeding?
2. How do the various LC classes in the Main Collection compare to one another in regards to their items' relevancy, currency, and usage?
3. What is the overall condition of the Main Collection's items taken as a whole, based on relevancy, currency, and usage?

Assumptions

This research assumes that the indicators and methods used can reasonably measure the criteria they are intended to evaluate.

Methodology

This research will be a quantitative, descriptive index measurement study. (The qualitative measurement criteria will be quantified into numerical scores.) The research will employ systematic and stratified sampling; the latter will occur when the scores of all the LC classes are averaged to determine an overall score for the collection. Methods selected for data

analysis were chosen based on their appropriateness to the purpose of the research and the nature of the data, as well as their affordability—only free resources and software already available to Gordon Library staff are required—and their feasibility, i.e., none require extensive training in statistical methods or computer programming. It is anticipated that individual LC class samples could be completed in an average of four days. The Main Collection contains 21 LC classes. Thus, total data collection and calculations are hoped to be concluded within five to six months if all data collection is done by a single person, or less time if multiple persons work on the project. This is assuming data collection is carried out by library staff only during regular work hours, and that staff have other duties that will preclude all work time from being spent on evaluation efforts.

For each LC class, the researcher will generate a report in Microsoft Access (pulling data from the Voyager ILS) of all items in that section in call number order. The report will then be exported to a numbered spreadsheet in Microsoft Excel. This numbered spreadsheet of item records will serve as the population to be sampled for each LC class. The sample size for each LC class will be determined using the SurveyMonkey Sample Size Calculator (SurveyMonkey, 1999-2015) based on an 80% confidence level (as this project is only a preliminary evaluation method), a 5% margin of error, and the total number of items in each Main Collection LC section. For instance, as of December 2, 2015, there were exactly 14,000 items in the P class, which is the largest LC class in the collection. Given the above parameters, this population size translates to a sample size of 162 books. The smallest LC class, the V section, has 78 items, which translates to a sample size of 54 books. A random number table (National Institute of Standards and Technology, 2011) will be used to select the starting point from the spreadsheet, where the researcher will begin systematic sampling. The sampling interval for each LC class

will be calculated by dividing the total number of items in the class by the sample size and rounding to the nearest whole number.

Data Collection & Analysis

General Procedure

For each item selected for the sample, a few pieces of identifying information from the item record will be transferred to a new spreadsheet and a score for that item will be assigned and recorded on the new spreadsheet for each of the index criteria (see next section for specific criteria and points assigned). The total of all the criteria scores will be added together and recorded on the Excel sheet as the index score for that item. Index scores will range from a low of 0 points to a high of 75 points possible. When an entire LC class has been systematically sampled and all selected sample books scored and assigned overall index scores, the mean of all the index scores for that section's sample will be calculated.

At the end of sampling all of the LC classes, the researcher will create a bivariate table in Microsoft Word to show the mean index scores for each class in rank order, as well as the mean index score for the entire collection (i.e., the mean of all of the LC class overall scores).

Index Criteria

Criteria to be used for determining an item's index score are shown in Table 1 below, along with how points will be assigned for each criterion, the source of the data for determining each criterion score, and previous studies or texts from the LIS literature in which that criterion was suggested for evaluating library collections. Note that if an item is listed in Voyager ILS as Missing or Lost, the item will not be scored according to other criteria below, but will simply be given an overall score of 0 (as that item effectively is adding nothing to the collection).

Table 1

Index Score Composition: Criteria and Accompanying Details

Criterion	Points (Pts.)	Source of data	Study/text where recommended
Number of times checked out, including ILL, 2001-present	10+ checkouts = 15 pts., 5-9 checkouts = 10 pts., 1-4 checkouts = 5 pts., 0 checkouts = 0 pts.	Voyager Access Report	Kohn, 2013; ASLAPR ^a , 2015; Zuber, 2012
Date of most recent checkout including ILL, 2001-present	2015 or 2016 = 15 pts., 2014 = 14 pts., 2013 = 13 pts. 2012 = 12 pts., etc.; No checkouts = 0 pts.	Voyager ILS	Lugg & Fischer, 2008
Publication date	2010s = 15 pts., 2000s = 10 pts., 1990s = 5 pts. Older than 1990 = 0 pts.	Voyager Access Report	Lugg & Fischer, 2008; Zuber, 2012; Kohn, 2013; Murphy, 2013; Arbeeny & Chittenden, 2014
If listed in benchmark school's catalog ^b	Yes = 15 pts., No = 0 pts. ^c	Other schools' OPACs	Avery & Harker in Wiersma, 2015a
If relates to a subject taught at Savannah State or is of local or school-specific interest (e.g., relates to Savannah, state of Georgia, HBCUs, library science)	Yes = 15 pts., No = 0 pts.	Determined by researcher from subject headings and descriptions in SSU or benchmark school's OPAC, Amazon.com, and/or physical book, and course listings and information on Savannah State website	McMillan, 2012; Kohn, 2013; Murphy, 2013; Esposito in Wiersma, 2015b
If duplicate or newer copies of item are held by Gordon Library	Yes = minus 5 pts., No = no change to score	SSU OPAC	McGraw, in Evans & Saponaro, 2005; McMillan, 2012

Notes.

^aASLAPR=Arizona State Library, Archives and Public Records

^bSee more on benchmarks below.

^cMissing or Lost at other school counts, as long as still listed in that school's OPAC

Benchmark Schools

Searching benchmark schools' OPACs was chosen as the easiest quantitative/unbiased method of evaluating books' content. Neither *RCL* nor *BCI* appeared to be available through SSU or the larger University System of Georgia (USG), nor through the researcher's graduate school; and many of the Main Collection books are older and would have been published prior to the earliest *Choice* reviews. Using departmental and program accreditation lists would require

contacting various offices to obtain lists for different disciplines, which would have taken time and slowed down the evaluation process, particularly during the summer months when many university faculty and staff are away from the office. This approach might be utilized in the future in the course of making weeding decisions.

SSU is part of the USG, which comprises all public colleges and universities in the state of Georgia. The USG categorizes its member institutions into tiers based on their missions (University System of Georgia, n.d.). SSU is considered a “state university.” For benchmark comparison purposes, a next-tier USG school (i.e., “comprehensive university”) seemed most appropriate, as this category represents somewhat larger schools and correspondingly larger and more comprehensive libraries toward which SSU’s library collection could aspire. (A bibliographic record count of all USG state universities and comprehensive universities conducted on November 1, 2015, using each library’s GIL-Find OPAC confirmed the larger size assumption.) Georgia Southern University (GSU) is the closest, distance-wise, next-tier USG school to SSU, and most of SSU’s academic teaching units are also offered at GSU; therefore, GSU was chosen as the main benchmark school for this project, and its library’s OPAC will be searched for most titles evaluated.

However, a few of SSU’s departments and units do not have equivalent units at Georgia Southern. Because GSU’s library likely would not need the same types of materials in these areas as would SSU, different USG benchmark schools that have dedicated programs in these areas have been chosen as benchmarks for any books determined by the researcher, based on subject headings and descriptions, to fall into one of the subject areas shown in Table 2 below. Note that Valdosta State University is the next closest, distance-wise, comprehensive university to SSU, so it was chosen as the benchmark for three of the remaining subject areas; the other

subjects represent more specialized programs only offered at one other USG institution as far as this researcher could determine.

Searching by title or title-and-author will typically be used to find books at other schools, as different schools may use different call numbers.

Table 2

Alternative Benchmark Schools for Selected Subjects

Subject	Alternative benchmark school
Dance, Naval Science, and Social Work	Valdosta State University
Marine Science	University of Georgia
Forensic Science	Albany State University
Homeland Security & Emergency Management	Augusta University
Urban Studies & Planning	Georgia Institute of Technology

Usage Measures

This study will not factor in-house usage into the index scores assigned to books; rather, it will only take into account actual loans out to patrons, either through Savannah State directly or via ILL. This is partly because in-house use statistics are not consistently kept for print materials in the Gordon Library and thus there is no way to derive accurate figures for this measure. But moreover, due to the nature of the items in the Main Collection (i.e., mainly nonfiction used for research and classwork, and adult fiction), a material having been looked at but not checked out is often an indication that the material turned out not to be what the patron wanted and therefore such “in-house use” should not be considered a good indicator of a book’s worthiness to the collection; in fact, the opposite could be true.

Another important note about the usage statistics gathered is that these numbers will not properly account for circulation of heavily-used titles that eventually become Missing or Lost and must be replaced. That is, each new item will only reflect its own circulation and not include the heavy use of the item it replaces. This underlines the need for faculty input and librarian oversight of all final weeding decisions to avoid deselecting titles in continued heavy demand.

Choice to Examine Catalog Records vs. Physical Items

Nearly all item scores designated as part of this research will be assigned without having to examine the physical book. The decision to not physically examine books as part of this initial evaluation process was made to save the time of having to search in the stacks for every item included in the samples. While physical condition of books is an important factor in weeding, older books are more likely to have physical damage such as bindings falling apart, crumbling pages, torn covers, etc., so the publication date category will effectively lower the scores of books that are more likely to be damaged.

Other Considerations

Before any actual weeding occurs, materials identified as candidates for deselection should be checked against the Universal Catalog of all University System of Georgia libraries, as deemed appropriate by the supervising librarian, to catch items that may be worthy of retention due to being unique holdings within the USG consortium. Additionally, faculty should be encouraged and given adequate time to review candidate items for weeding from their respective teaching subjects, and faculty feedback should be incorporated into final deselection decisions. A best practice may be to also provide faculty with partial or complete lists of items being retained in their areas, so they can weigh candidates for withdrawal against the rest of their subject areas' holdings.

Beyond the priority areas identified using the index scores, the areas of the sciences, technology, and business are noted in the Gordon Library's Collection Development Policy as priorities for weeding due to the importance of currency within those fields. Additionally, all teaching subject areas should be considered priorities over non-teaching fields for weeding and for new purchases, as supporting the curricular needs of the University is central to the library's mission (McMillan, 2012, p. 1).

Discussion

Pilot Study

The Q section was selected for the initial pilot study, as it contains science materials for which becoming outdated is a significant issue, and it is one of the priority areas noted in SSU's Collection Development Policy. The pilot study results are shown in Table 3 in the Appendix. The Sample Size Calculator determined that for the 4,922 books in this LC class as of June 29, 2016, a sample size of 159 was required to achieve the desired confidence level and margin of error. Georgia Southern was used as the benchmark for most books in the sample, but any books related to marine science were instead searched in the University of Georgia OPAC. Title or title-and-author keyword searches were usually chosen when searching the OPACs, with the researcher's discretion determining any search modifications or faceting required.

The researcher's judgment also came into play in determining the applicability of materials to currently-taught courses at Savannah State, as described in the previous Methodology section of this paper. For instance, books on outdated computer systems no longer being taught were deemed not related to a Savannah State subject, even if newer computer systems are currently part of the curriculum. When in doubt as to a book's relevancy in this regard, the researcher chose to risk erring on the side of caution in this early phase of evaluation,

opting to count such items as related to the curriculum. Later, when the actual weeding process begins, professors can provide more expert guidance on what is and is not truly relevant to current academic needs.

Caution was again practiced when determining how to consider various editions of titles. If the benchmark library owned an older edition, the researcher counted this as the benchmark owning the work in question (giving points for the other school deeming some version of the work as worthy of inclusion in its collection). However, if SSU owned an older copy of a work—even if the content was likely the same in both editions—the researcher did not consider this a duplicate, as the newer version could be considered superior to an older, possibly more damaged copy, except in the case of e-books, where physical condition is a non-issue and only content should be considered. Apart from this, e-books and other formats like microfilm (the latter only applied in one instance) were treated as equivalent to hard-copy books when judging duplicate status and benchmark ownership. A newer edition of the same work owned by SSU did result in a point deduction for the duplicate score. Technically, this last case often would make the book a superseded edition—or occasionally might not, if the new edition did not cover all relevant material in the previous edition, potentially rendering the older edition still useful—but for purposes of this assessment this situation was treated as a duplicate.

Other issues encountered during the pilot study included a few cases where the Access Report did not pull a definitive publication date for the item in question, e.g., some books were part of a series and the report gave only the date range for the series instead of the individual volume date. This prompted the extra step of looking the book up by its barcode in the Voyager cataloging module, and in two instances, an incomplete catalog record necessitated examining the physical book to determine the date of publication. There were also several cases in which

the ILS showed books as having one or more historical charges (i.e., checkouts), but no charge details were listed in the items' circulation histories. After consulting with the Gordon Library's Head of Technical Services, it was determined that there was no reliable way to establish the date of these historical checkouts, but that they were likely not recent (A. Cottle, personal communication, July 7, 2016). To address this uncertainty, a middle-ground route was chosen: points were added to the item's score for the number of checkouts, but no points were given for the most recent checkout. Such cases are notated with an asterisk in the Appendix table.

Findings

The index score for the Q section was 28.069 out of a maximum 75 points. The score for the individual class can best be utilized by comparing it to the other LC classes' index scores to determine which sections score lowest and, by inference, which sections are most in need of weeding and updating. However, while it may be advisable not to make any solid conclusions from this score alone at this early stage of research, the findings of the pilot study—a score of about 28/75, roughly 37%—suggest that the Q class could benefit from informed deselection and possible new additions to better meet the needs of University students and faculty. Perhaps even more telling is that the average publication year of the Q section books is earlier than 1980—the exact number was calculated as 1979.84. This piece of information signifies that the Q section of the Gordon Library's Main Collection is aging, and given the importance of having up-to-date materials for science students and faculty, pruning and/or updating the collection of science print monographs seems sensible.

The proposed methodology generally worked as expected, with sampling and scoring of the Q class completed over three days, with several intensive hours spent each day. Looking up titles in multiple OPACs and the ILS when needed, along with occasionally performing searches

of the Savannah State website to determine if a particular topic was covered in any courses, was predictably time-consuming and tedious, but fairly straightforward. Following the outlined procedures to score the rest of the Main Collection appears feasible and a reasonable approach given current resources. Automation of some steps in the future via use of advanced reporting features in a newer ILS or access to an authoritative tool like *RCL* for quickly judging book content could potentially speed up data collection and reduce the chance of human error.

Conclusion

In the pilot study, the proposed methodology was determined to be workable. In addition to the results of this research being immediately useful for the Asa H. Gordon Library, there are likely other small academic libraries that have not undergone major weeding in some time and do not have access to specialized collection evaluation tools, *RCL*, or similar resources. For these and other libraries, the information learned from the proposed research about which techniques are most affordable, efficient, and practical for evaluating a collection may help staff in planning their own evaluation and weeding projects.

Additionally, this research incorporates several current trends among libraries and academic libraries in particular: benchmarking, i.e., comparison against and pushing to stay competitive with peer institutions; statistics-keeping and assessment to enable data-driven decisions in the higher education environment; being cost-efficient; and making strategic use of physical space to allow for increased collaborative areas and technology, while retaining core and high-demand materials in print form to best meet student and faculty needs. It is hoped that this eye to current trends, combined with the usefulness of the project's intended outcomes and the highly feasible, minimal-cost methods proposed for carrying out the research, will lead to this project's approval and implementation.

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Appendix

Table A1

Scores for systematic sample of books from Q class of Savannah State University Main Collection

Book Information		Scores						
Call Number	Publication Year	Number of Checkouts	Most Recent Checkout	Publication Date	Benchmark Ownership	SSU Subject	Duplicate	Index
QA76.8.T18 L48	1982	0	0	0	0	0	0	0
QA76.9.C66 R67 1976	1976	0	0	0	15	15	0	30
QA76.9.D3 L36	1976	0	0	0	15	15	0	30
QA76.9.D5 K37 1979	1979	0	0	0	0	15	0	15
QA76.9.S88 W48 1989	1989	5	2	0	0	15	0	22
QA95 .H64 1973	1973	0	0	0	15	15	0	30
QA135.5 .F48	1981	0	0	0	15	15	0	30
QA152.2 .B79	1980	0	0	0	0	15	-5	10
QA154.2 .L43	1975	5	2	0	0	15	0	22
QA171 .M2 1976	1976	5	6	0	0	15	0	26
QA241 .N56 1972	1972	5	9	0	15	15	0	44
QA251 .Z43 1973	1973	5	9	0	15	15	0	44
QA273 .B587	1971	15	13	0	0	15	-5	38
QA276 .C474	1978	10	13	0	0	15	0	38
QA276.12 .W4 1981	1981	10	9	0	15	15	0	49
QA277 .K35 1998	1999	10	15	5	15	15	0	60
QA279 .K54 1987	1987	5	7	0	15	15	0	47
QA297.8 .K45 1995	1995	5	8	5	15	15	0	48
QA303 .G48 1973	1973	5	12	0	0	15	-5	27
QA303 .R726	1979	10	10	0	0	15	0	35
QA315 .B5	1925	0	0	0	15	15	-5	25
QA371 .M78 1964	1964	5	10	0	15	15	0	45
QA402.5 .F43	1981	0	0	0	15	15	-5	25
QA515 .P75 1970	1970	0	0	0	0	15	0	15

Call Number	Publication Year	Number of Checkouts	Most Recent Checkout	Publication Date	Benchmark Ownership	SSU Subject	Duplicate	Index
QA611 .C439	1976	5	14	0	0	15	0	34
QA913 .K75 1979	1979	0	0	0	0	15	0	15
QB45 .B47 1977	1977	5	0*	0	0	15	0	20
QB461 .K57 1998	1998	5	3	5	15	15	-5	38
QB641 .F73	1977	0	0	0	0	0	0	0
QB981 .C884 2001	2001	0	0	10	0	15	0	25
QC16.E5 S32 1979	1979	5	3	0	0	15	0	23
QC21.2 .H35 2001b	2001	5	15	10	0	15	0	45
QC33 .D86 1988	1988	0	0	0	15	15	0	30
QC173.55 .S57 1997x	1997	5	14	5	0	15	0	49
QC174.5 .S36	1964	0	0	0	0	15	0	15
QC189.5 .S36 1979	1978	0	0	0	0	15	0	15
QC320 .K7 1993	1993	5	2	5	15	15	0	42
QC631 .J3 1999	1999	5	12	5	15	15	0	52
QC861.2 .A35 1983	1983	5	3	0	15	15	0	38
QC981.8.C5 K45 2000	2000	5	2	10	15	15	0	47
QD11 .P3	1960	5	0*	0	0	15	0	20
QD31.2 .B37	1972	0	0	0	0	15	0	15
QD31.2 .K55 1972	1972	5	0*	0	0	15	0	20
QD31.3 .G73 2003	2003	15	13	10	0	15	-5	48
QD39 .A74	1974	5	13	0	0	15	0	33
QD45 .M38	1944	0	0	0	0	15	0	15
QD78 .K63	1979	5	5	0	0	15	0	25
QD101.2 .B45 1970	1970	0	0	0	0	15	0	15
QD181.U7 B52	1979	0	0	0	0	15	0	15
QD257 .R34	1980	0	0	0	0	15	0	15
QD262 .C53	1984	0	0	0	15	15	-5	15
QD262 .R33	1975	0	0	0	15	15	-5	25
QD381 .B52 1971	1971	5	15	0	15	15	0	50
QD453 .G75 1965	1965	5	0	0	0	15	0	20
QD476 .L35	1978	0	0	0	0	15	0	15

Call Number	Publication Year	Number of Checkouts	Most Recent Checkout	Publication Date	Benchmark Ownership	SSU Subject	Duplicate	Index
QD562.I65 E38 2005	2005	10	15	10	0	15	0	50
QE31 .W45 1986	1986	0	0	0	15	15	0	30
QE471.2 .C6	1978	10	12	0	15	15	0	52
QE701 .S56 no. 55	1984	0	0	0	15	15	0	30
QH1 .M27 1979	1980	0	0	0	0	15	0	15
QH31.D2 B84 1996	1996	5	11	5	15	15	0	51
QH75 .G454 1999	1999	5	9	5	0	15	-5	29
QH84 .V47	1978	0	0	0	15	15	0	30
QH91.A1 A22	2001	5	3	10	15	15	0	48
QH91.57.A1 A3	1980	5	2	0	15	15	0	37
QH102 .P38	1955	0	0	0	15	15	0	30
QH111 .B3 1962	1962	5	0*	0	15	15	-5	30
QH308.2 .A93 1999	1999	10	10	5	0	15	-5	35
QH311 .L645 1989	1989	5	12	0	0	15	0	32
QH324 .R32	1965	0	0	0	0	15	-5	10
QH331 .S97 1972	1972	0	0	0	0	15	0	15
QH361 .B68 1983	1983	0	0	0	15	15	0	30
QH366.2 .J65 1993	1993	5	7	5	0	15	0	32
QH421 .S7	1966	0	0	0	0	15	-5	10
QH431.A1 A54	1980	0	0	0	15	15	0	30
QH431 .H455 1965	1965	0	0	0	0	15	-5	10
QH431 .S713	1968	0	0	0	15	15	0	30
QH450 .G47 1973	1973	0	0	0	0	15	0	15
QH501 .C36	1978	5	0*	0	0	15	0	20
QH540 .E3115	1975	5	0*	0	15	15	0	35
QH541 .R54 1979	1979	5	8	0	0	15	0	28
QH541.15.S68 S73 1998	1998	5	2	5	0	15	0	27
QH541.5.M65 B7	1967	0	0	0	15	15	0	30
QH541.5.S3 L65 1998	1998	5	12	5	15	15	0	52
QH545.N3 R45 2001	2001	5	9	10	15	15	0	54
QH581 .P32	1970	0	0	0	0	15	0	15

Call Number	Publication Year	Number of Checkouts	Most Recent Checkout	Publication Date	Benchmark Ownership	SSU Subject	Duplicate	Index
QH585.5.F56 T43 1987	1987	5	5	0	0	15	0	25
QH603.M5 T94 1982	1982	0	0	0	0	15	0	15
QH631 .G8	1968	0	0	0	15	15	-5	25
QK26 .H8 1961	1961	0	0	0	15	15	0	30
QK125 .D79 1988	1988	5	12	0	15	15	-5	42
QK567 .S55	1951	5	0	0	15	15	0	35
QK649 .F35 1984	1984	0	0	0	0	15	0	15
QL1 .S54	1982	0	0	0	0	15	0	15
QL3 A5413	1972	5	11	0	0	15	0	31
QL63 T55	1977	0	0	0	0	15	0	15
QL126 .H36 1968	1968	5	0*	0	15	15	0	35
QL364 .N34	1976	5	11	0	0	15	0	31
QL430.7.U6 O37 1995	1995	5	7	5	15	15	0	47
QL461 .A5	1963	0	0	0	15	15	0	30
QL615 .G73 1997	1997	5	11	5	15	15	0	51
QL638.12 .H37	1979	0	0	0	15	15	0	30
QL676.5 .H6	1980	0	0	0	15	15	0	30
QL696.P5 T3 1966	1966	5	4	0	15	15	0	39
QL737.C22 C74 2002	2002	5	13	10	0	15	0	43
QL737.R6 O44	1979	0	0	0	0	15	0	15
QL761 .H36	1979	5	4	0	0	15	0	24
QL805 .K43 1983	1983	5	1	0	0	15	0	21
QM23.2 .G73 1973b	1973	5	0*	0	15	15	0	35
QP1 .A535	1983	0	0	0	15	15	0	30
QP34.5 .B55 1984	1984	0	0	0	15	15	0	30
QP82.2.L5 O873 1982	1982	5	0*	0	0	15	0	20
QP98 .Z57 1978	1978	5	13	0	0	15	0	33
QP187 .E73	1963	5	8	0	15	15	0	43
QP187 .R32	1954	0	0	0	15	15	0	30
QP301 .M85 1994	1994	0	0	5	0	15	0	20
QP356.3 .D8 1967	1967	0	0	0	15	15	0	30

Call Number	Publication Year	Number of Checkouts	Most Recent Checkout	Publication Date	Benchmark Ownership	SSU Subject	Duplicate	Index
QP376 .S6377 2008	2008	5	16	10	0	15	0	46
QP501 .A7	1972	0	0	0	15	15	0	30
QP514.2 .T4	1982	5	0*	0	15	15	-5	30
QP551 .P695	1983	0	0	0	15	15	0	30
QP671 .F63	1960	0	0	0	15	15	0	30
QR1 .A5	1983	5	0*	0	15	15	0	35
QR63 .M48 1994	1994	5	13	5	0	15	0	38
QR105 .A7	1977	0	0	0	15	15	0	30
QR185.5 .P48	1979	5	0*	0	0	15	0	20
QR360 .T5413	1970	0	0	0	0	15	0	15
Q125 .S24	1952	0	0	0	15	15	0	30
Q141 .H69	1951	0	0	0	0	15	0	15
Q158.5 .R87 1990	1990	0	0	5	15	15	0	35
Q172.5 .S34 1989	1989	0	0	0	15	15	0	30
Q175 .S827 2001	2001	0	0	10	0	15	0	25
Q180 .H4	1970	0	0	0	0	15	0	15
Q181 .G67y	1970	0	0	0	0	15	0	15
Q310 .T33	1961	0	0	0	15	15	0	30
QA1 .N3	1932	0	0	0	15	15	0	30
QA1 .N3 34 th	1973	0	0	0	15	15	-5	25
QA9 .K4	1922	0	0	0	0	15	-5	10
QA11 .U85 1990	1990	0	0	5	0	15	0	20
QA23 .D33 1977	1977	5	0*	0	0	15	0	20
QA37.2 .A3	1979	5	0*	0	0	15	0	20
QA39 .K22	1965	5	0*	0	15	15	0	35
QA40.5 .M38 2002	2002	5	4	10	0	15	-5	34
QA76 .A844	1977	5	0*	0	15	15	0	35
QA76 .H658x	1981	0	0	0	0	15	0	15
QA76 .S5 1990 [INSTR MANUAL]	1990	0	0	5	0	15	0	20
QA76.3 .M532 2000	2000	5	3	10	0	0	0	18
QA76.5 .F34	1966	0	0	0	15	15	0	30

Call Number	Publication Year	Number of Checkouts	Most Recent Checkout	Publication Date	Benchmark Ownership	SSU Subject	Duplicate	Index
QA76.5 .L656 1988	1988	5	0*	0	0	15	0	20
QA76.54 .B85 1999	1999	0	0	5	0	15	0	20
QA76.6 .M318 1975	1975	0	0	0	0	15	0	15
QA76.64 .J64 2000	2000	5	11	10	0	15	0	41
QA76.73.A8 Y37	1979	0	0	0	0	15	0	15
QA76.73.B3 P745 2002	2002	0	0	10	0	15	0	25
QA76.73.C25 G72	1981	0	0	0	0	0	0	0
QA76.73.F25 B728 1985	1985	5	0*	0	0	0	0	5
QA76.73.J38 M37 1996	1996	10	15	5	0	15	0	45
QA76.73.P2 N35 1989b	1989	0	0	0	0	0	0	0
QA 76.73 P451	1997	0	0	5	0	15	0	20

Note. **0*** = no date of last checkout in circulation history.