



# Strategic Weeding by the Numbers: Index Scoring in Library Collections

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## Introduction

Ashland University Library has identified a pressing need to evaluate and weed physical titles from its collection in order to better align itself to current library trends and prepare for an eventual library renovation project. The collection is oversized when compared to other library peers in the Midwest, and has seen the general trend over the years of reduced circulation in favor of electronic access titles.

Estimates of usage and space requirements have identified that approximately 20-30% of the collection needs to be moved to long-term storage or weeded in order to align collection size with usage and prepare for renovation. With a general circulating collection comprised of over 112,000 items, this means identifying, evaluating and removing over 20,000 copies, preferably before renovation would necessitate moving the items several times. Factoring the availability of materials through online access points and the OhioLINK catalog, it was decided weeding the material would be more economically feasible than developing an off-site storage solution independently.

This project was developed to create a workflow that would speed the weeding process by identifying subsets of the collection with reduced circulation or relevance to current course offerings, without sacrificing access to holdings both for AU students and the OhioLINK consortium. It also reverses the traditional weeding process by primarily evaluating a title before pulling titles for review.

The following project goals were identified:

- Establish where (age-wise) in an LC Class would be the highest priority to weed.
- Quickly be able to identify titles being used frequently, recently, or both.
- Develop a list of underperforming titles to check against additional criteria.
- Identify titles duplicated by holdings in the OhioLINK catalog or through other online access points.
- Evaluate whether a title still aligns to Ashland University course offerings or interests.
- Create a developed weeding list with demonstrable reasoning to use to pull and withdraw titles.

The workflow that resulted from this development was applied to two LC Class areas within the AU Library general collection for weeding accomplished over the summer of 2019. In LC Class L (education), the faculty librarian conducted weeding in a traditional manner by the evaluating the collection as a whole and pulling titles a cart at a time to evaluate them. The index scoring process was then applied retroactively to see how many titles identified were actually weeded by the librarian.

In LC Class Q (science), the faculty librarian conducted the index scoring process first to develop a pull list, then weeded again afterwards to compare the two processes. In the area reviewed by the librarian in LC Class L, 83% of the titles identified by the index scoring process were weeded using a traditional workflow. In LC Class Q, only 18% of the titles identified by the index scoring process were weeded.

The difference in effectiveness between classes may be due to scope of the areas reviewed and previous weeding projects; the smaller scope with more similar items in class L may have allowed for easier identification of titles to remove, while the larger scope and diverse subject area in Q meant reviewing the collection in whole precluded the removal of more indexed titles.

## Reference Literature

Fortner, Elizabeth J. (2016). Print monograph collection evaluation in a small academic library in preparation for large-scale weeding. *Valdosta State University*. Retrieved from <https://tigerscholarcommons.savannahstate.edu/handle/11286/620748>

Kohn, Karen C. (2013). Usage-based collection evaluation with a curricular focus. *College & Research Libraries* 74(1), 85-97.

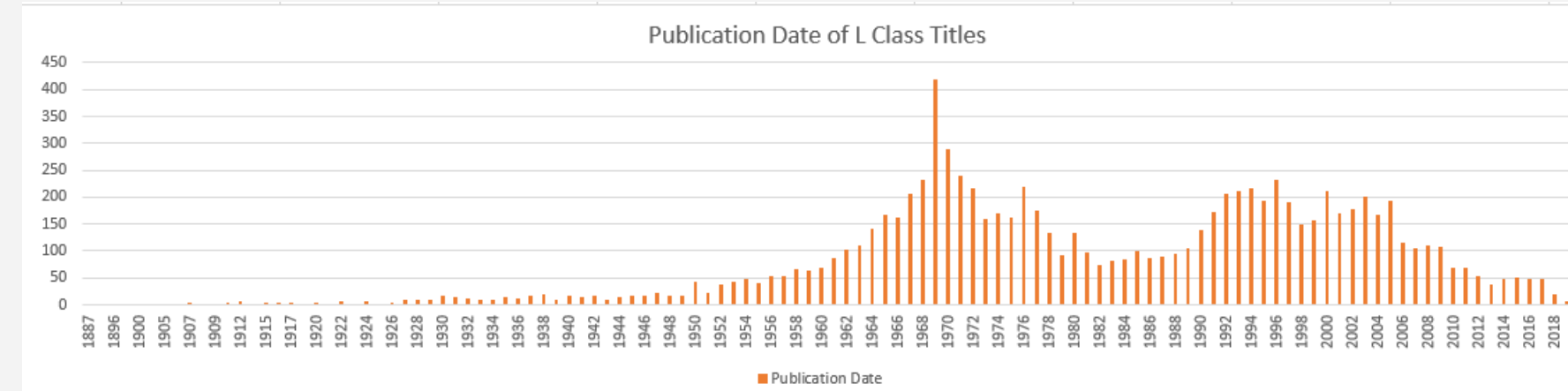
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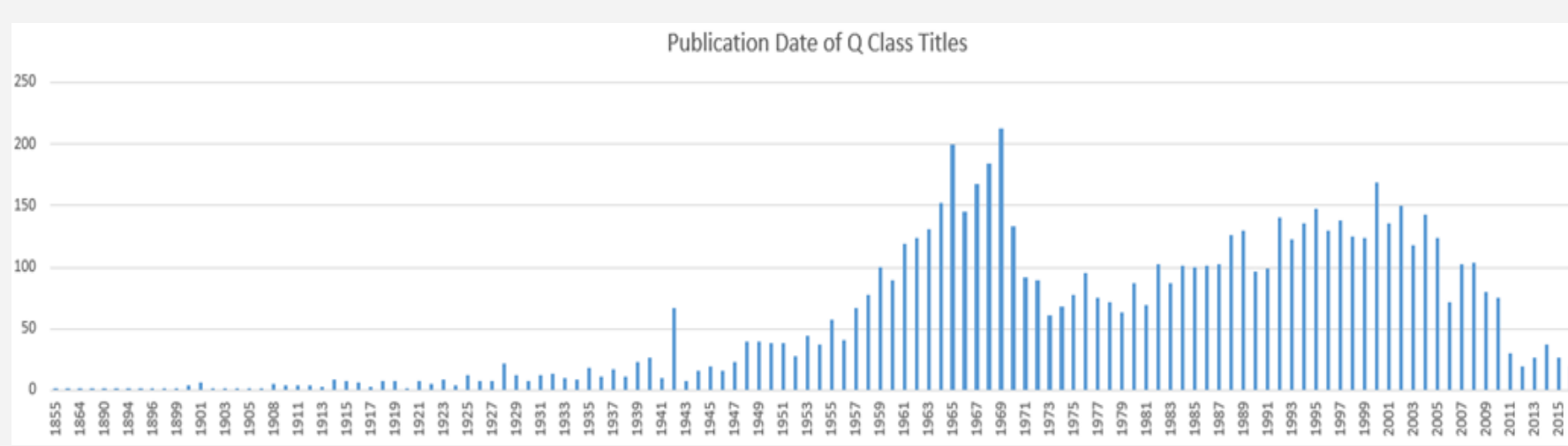
## Reviewed Areas

LC Class L Attributes
Item count: 9230
Average age of titles: 1982
Mode of titles: 1969



Number of titles within chosen years 1964-1980: 3319 of 9230 (35%)

Number of titles that return a base score of 10 (zero additional points) when index score template is applied: 1864 of 3319 (56%- 20% of 9230). Librarian reviewed an area including 3672 titles (39% of collection), where 798 titles were index scored (21%).



LC Class Q Attributes
Item count: 7176
Average age of titles: 1978
Mode of titles: 1969

Number of titles within chosen years 1960-79: 2347 of 7176 (32%)

Number of titles that return a base score of 10 (zero additional points) when index score template is applied: 966 of 2347 (41%- 13% of 7176).

## Weeding Overview: Ls & Qs



AU Library collections have most often been weeded on an as-needed basis. The Ls were reviewed in 1999, prior to the inception of the Instructional Resource Center on the 2nd floor. In 2017, phase one of weeding the Ls was completed resulting in deselection of 1,200 titles and removal of stacks. Phase two was completed during this project, summer 2019. Phase three is planned for summer 2020.



The Qs had been weeded on two previous occasions, most recently in 2016 during a reorganization project focused on creating open areas on the main floor. Periodicals were relocated to the sixth floor and collections residing there were evaluated. As a result, 32 sections and an estimated 5,760 titles were removed enabling the floor plan to be successfully revised.

**Weeding Guidelines:** General guidelines for weeding the Ls included of age and condition of book, content and currency, curriculum need (including change in program offerings), depth of collection, circulation and use, number of copies, and availability of title in OhioLINK. Due to age and dated content of deselected titles, many were discarded instead of presented to the campus population as free book options.

**Future Weeding:** A custom stamp was developed for use with the weeding process. If a title met deselection criteria and was retained, it was stamped. This book was last evaluated by \_\_\_ on \_\_\_ and retained because: criteria includes nothing newer available, classic in the field, illustrations, and other (be specific).

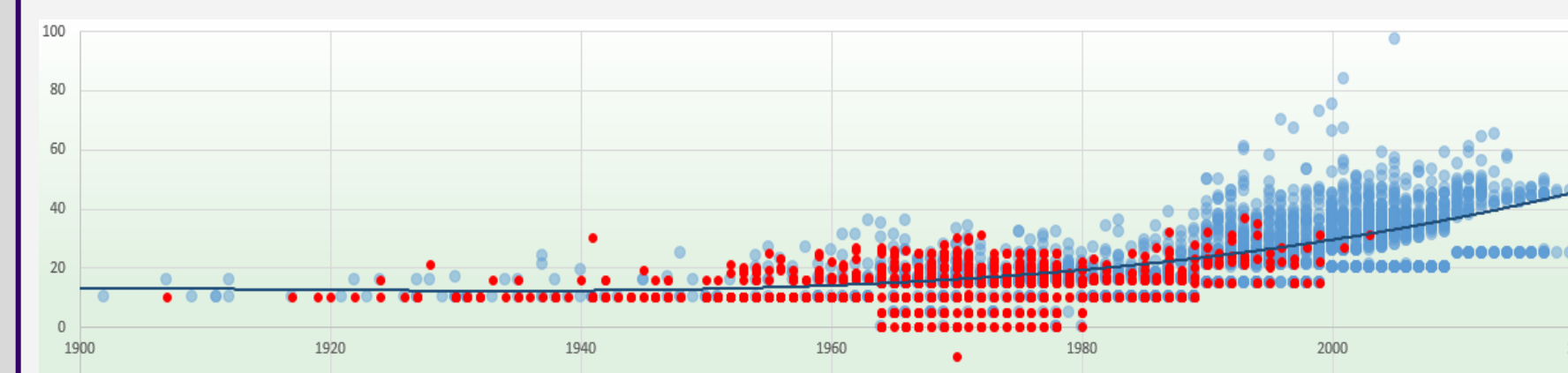
## Evaluation Framework

The evaluation framework is applied using data imported into the template. Four inputs are applied by the evaluator: number of libraries holding copies of a title, if an ebook available, if the subject matter is relevant to current course offerings, and if the title is duplicated or superseded by other holdings. These questions can be answered spending less than a minute on average per title by examining holdings in Sierra, OhioLINK Encore catalog, & EDS.

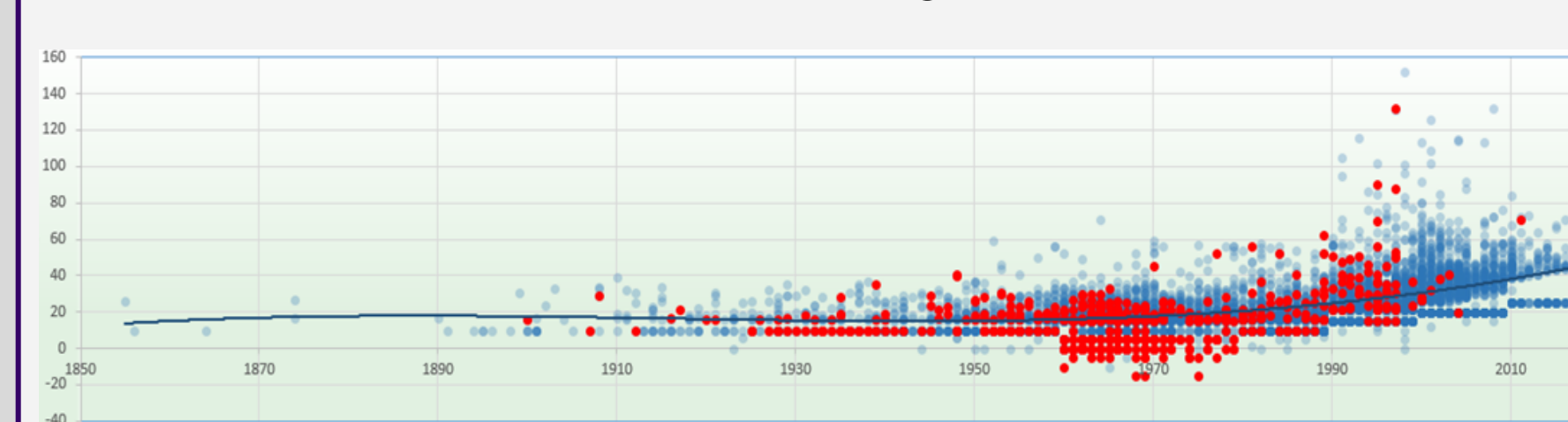
Criterion	Points	Data Source
Number of checkouts + renewals from 1997-present	Sum of the number of checkouts + renewals	Sierra ILS checkout and renewal data
Date of last check-in	If item was last checked-in in: 2019- 15 points 2018- 14 points 2017- 13 points 2016- 12 points 2015- 11 points 2014- 10 points 2013- 9 points 2012- 8 points 2011- 7 points 2010- 6 points 2009- 5 points 2008- 4 points 2007- 3 points 2006- 2 points 2005- 2 points 2004- 1 point Before 2004 to 1997- 0 points No last check-in data: -5 points	Sierra last check-in date
Publication Date	Item was published between: 2010-2019- 15 points 2000-2009- 10 points 1990-1999- 5 points Before 1990- 0 points	Sierra MARC record data from 260/264 fields
OhioLINK Holdings- number of libraries holding copies of same title (all editions)	0-5 Library copies- 15 points 6-10- 10 points 11-20- 5 points 21-24- 0 points Greater than 25- -5 points	OhioLINK Encore catalog
Relevance to current course offerings or research area (subject score)	Relevant to subject- 15 points Not relevant- 0 points	Faculty Librarian subject liaison decision
Is there an ebook available for this or a more current edition?	Yes = -5 points No= 0 points	EBSCO Discovery Service (EDS)
Is the title duplicated in our catalog, or superseded by another more current edition?	Yes= -5 points No= 0 points	Sierra holdings, OhioLINK Encore catalog, EDS

## Findings

### Scatter Plot of Index Scoring Data in LC Class L



### Scatter Plot of Index Scoring Data in LC Class Q



Red represents weeded titles and blue retained titles by publication date and index score.

In total 3,672 titles were evaluated in Class L, of which 1,554 were weeded (42%).

Weeded titles had an average index score of 14. 798 titles within the evaluation area met the additional criteria (publication date and base score) to be index scored, of which 664 were weeded; 83% of titles identified by the process were then weeded by the librarian using traditional methods.

In class Q 7,176 titles were evaluated, and of those 557 were weeded in total (7%).

The weeded titles had an average index score of 15.8. Using the index scoring process and criteria, 1,047 titles were identified, but only 196 titles scored were weeded; 18% of titles identified were then weeded by the librarian using the index scores as a guide.

## Index Scoring Process

Below is a screenshot of the spreadsheet used to tabulate and record results of the index scoring process. The first five columns contain data imported from Sierra: barcode, call number, total checkouts + renewals, the year item was last checked in, and its publication date. The sixth column contains the tabulated index score, which changes according to the responses recorded in columns seven through ten, based on the evaluation framework. Columns eleven through sixteen contain mechanisms for assigning points to responses.

This spreadsheet is used as a template: columns one through five are imported and every item begins with a base index score of 10. The faculty subject liaison can determine a cutoff point to be used for reviewing titles to potentially be weeded from the collection. It was determined that the AU collection generally gave a cutoff point of 20 points; items falling under that score were more likely to be weeded compared to items left in the collection. The weeding resulted in raising the average index score of titles remaining by 1.7 points.

Average index score of titles in LC Class L before weeding: 22.0

Average index score of titles weeded from Class L: 14.0

Average index score of remaining titles: 23.7

## Conclusions & Future Use

Mixed results found when applying the index scoring process may be affected by:

- Librarian experience and familiarity with surveyed collection - The librarian weeding Class L has 20 years experience of collection development and use of that collection for the College of Education and its programs; the librarian weeding in Class Q is new and not as familiar with past collection development.
- The breadth of the collection surveyed- The librarian in Class L focused on a specific subset of the collection. While the scope of the collection was significant, especially given it serves a student population from undergrad to PhD, identification of materials for de-selection was straightforward. Weeding the Ls is envisioned as a three step process. The librarian in Class Q surveyed the class in its entirety, meaning that a wide array of subjects needed to be represented by the material existing in the collection, and therefore it was harder to remove materials that did not have subject matter covered by other holdings. Furthermore, the Qs had been weeded twice in the last seven years.

In both classes, it was demonstrated that the index scoring process was successful in identifying titles to weed by deflating their score below the average. In parts of the collection that were not scored, both librarians also identified material to weed that had lower-than-average base scores represented by importing the use and publication data into the template, but without further application of the evaluation framework.

Further use of the index scoring process is ongoing with other parts of Ashland University Library's collections, as well as continued retroactive scoring against traditionally weeded titles to compare results.

Moving forward, it may be possible to automate parts of the index scoring process using XML web-scraping to count the number of holding libraries in the OhioLINK catalog. The author has already developed a script to this end, though difficulties with multiple editions and scaling remain.

Comparison of ebook vs. print holdings could possibly be accomplished through comparison of data in title lists. Further automation of the process would significantly reduce the time the librarian would spend manually checking titles in online catalogs before starting weeding in the surveyed area, and help to ensure that the subject score (the librarian's judgement of a title's representativeness to the subject and institution) would remain the most important factor in the process.