

Kansas Library Association College and University Libraries Section Proceedings

Volume 9
Number 1 *Going the Distance: Academic Library
Planning for the Long-Term*

Article 3

2019

A Comparison of Cataloger and Non-Cataloger Responses to a Survey of Perceptions and Preference toward Dewey Decimal and Library of Congress Classification

Brady D. Lund
Emporia State University, blund2@g.emporia.edu

Follow this and additional works at: <https://newprairiepress.org/culsproceedings>

 Part of the [Cataloging and Metadata Commons](#), [Collection Development and Management Commons](#),
and the [Higher Education Commons](#)



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](#).

Recommended Citation

Lund, Brady D. (2019) "A Comparison of Cataloger and Non-Cataloger Responses to a Survey of Perceptions and Preference toward Dewey Decimal and Library of Congress Classification," *Kansas Library Association College and University Libraries Section Proceedings*: Vol. 9: No. 1. <https://doi.org/10.4148/2160-942X.1072>

This Article is brought to you for free and open access by the Conferences at New Prairie Press. It has been accepted for inclusion in Kansas Library Association College and University Libraries Section Proceedings by an authorized administrator of New Prairie Press. For more information, please contact cads@k-state.edu.

A Comparison of Cataloger and Non-Cataloger Responses to a Survey of Perceptions and Preference toward Dewey Decimal and Library of Congress Classification

Abstract

Serving as a follow-up to Lund and Agbaji's 2018 surveys of library employee preferences towards Dewey Decimal and Library of Congress Classification schemes, this study presents inferential comparisons between the responses of cataloging librarians' and non-cataloging librarians perceptions and preferences towards DDC and LCC. The hypothesis for this research is that, based on the cataloger's expertise in cataloging and classification relative to the average employee, they may have substantially different perceptions/preferences toward library classification schemes. The data, however, do not reflect such a difference. Instead, we find no statistically significant difference between the perceptions of catalogers and non-catalogers and only a small difference in preference exists, which can be explained by confounding variables. This suggests that although cataloging librarians have specialized knowledge about classification, their opinions about classification schemes are not distinct from their non-cataloging peers.

Keywords

Library Classification, Dewey Decimal Classification (DDC), Library of Congress Classification (LCC), Perceptions, Academic Libraries, Catalogers

Cover Page Footnote

The researchers would like to thank Drs. Sarah Sutton and Terri Summey at Emporia State University for their guidance in the development of the classification scheme preference survey. We would also like to thank the reviewers for their helpful feedback.

Introduction

Serving as a follow-up to Lund and Agbaji's 2018 surveys of library employee preferences towards Dewey Decimal and Library of Congress Classification schemes, this study presents inferential comparisons between the responses of cataloging librarians' and non-cataloging librarians perceptions and preferences towards DDC and LCC. The hypothesis for this research is that, based on the cataloger's expertise in cataloging and classification relative to the average employee, they may have substantially different perceptions/preferences toward library classification schemes. The data, however, do not reflect such a difference. Instead, we find no statistically significant difference between the perceptions of catalogers and non-catalogers and only a small difference in preference exists, which can be explained by confounding variables. This suggests that although cataloging librarians have specialized knowledge about classification, their opinions about classification schemes are not distinct from their non-cataloging peers.

Literature Review

The present analysis builds upon data collected in a prior study (Lund & Agbaji, 2018a). This study was loosely based on Shorten, Seikel, and Ahrberg's (2005) survey of academic libraries decisions to reclassify collections. One important finding from the Shorten et al. study was that cost and resources were not necessarily the greatest barriers to reclassification. Often high impetus for change paired with low resistance enabled change to occur. These findings supported earlier findings by Stigler and Becker (1977), who found that organizational change occurred only when it would significantly improve utility and not face overwhelming opposition. One of the major purposes of the Lund and Agbaji (2018a) study was to examine relationships between schemes currently in use, perceptions towards these systems, preference for a particular system, and desire/impetus for reclassification. The findings of this study indicated that those individuals who had remained with an organization for a period of time grew accustomed to and preferred the system currently in use, resulting in opposition to change (as captured in qualitative questions pertaining to reluctance towards reclassification). We suggested Zajonc's *familiarity principle* (1968) as a theoretical explanation of why reclassification was not occurring at a greater rate among academic libraries currently using Dewey Decimal Classification, even though the vast majority of academic librarians in the study indicated that DDC was not suitable for academic libraries.

Though virtually all library employees interact with the collections/cataloging system regularly, catalogers have the most intimate relationship with the scheme, given their job duties involving integrating new acquisitions into the collection/scheme. The traits of MLS-credentialed cataloging librarians (technology adoption, social attributes, and professional interests in information organization vs. retrieval or instruction) appear to differ from those of reference/instructional librarians and other library faculty and staff (Xu, 1996; Cox & Myers, 2010). Given these differences in traits, competencies, and duties, it may be possible that the findings in this study for cataloging librarians' perceptions and preferences towards classification schemes would differ from the overall findings reported by Lund and Agbaji (2018a). While these data were collected during the initial study, a perceived lack of significance on the part of the authors prevented it from being presented in the initial article; this paper will present these findings.

Methods

This study uses data collected from the Lund and Agbaji 2018 survey of academic library employees' perceptions and preferences towards the major library classification schemes (Dewey Decimal and Library of Congress). The survey was administered using the Qualtrics survey tool and was distributed directly to a random sample of academic library employees

from across the United States via email. This random sample was developed by exporting the names of all colleges and universities in the United States from the National Center of Educational Statistics and using a random number generator to select 100 of these institutions. The survey consisted of seven demographic questions (highest level of educational achievement, job title, size of academic library), seven Likert or multiple-choice items (perception of ease of use for both DDC and LCC, perception of effectiveness of organization for both DDC and LCC, and preference of DDC/LCC in general, as a library employee, and as a library patron), and two-open ended questions (for additional comments). This survey is displayed in appendix 1.

Data collection occurred from February 1, 2018 to March 1, 2018 (n=792). Initial findings from the data were published in Lund & Agbaji, 2018a and Lund & Agbaji, 2018b. Based on feedback from these two published papers, one question that many readers had that was not addressed is whether a difference in perceptions/preference exists between individuals who are and are not cataloging librarians. The general belief present in these readers' feedback was that catalogers' feedback was most important for the study (which we disagreed with), and that data from other employees diminished the perception of the catalogers. That belief serves as the alternative hypothesis for this study – that there is a significant difference in perceptions of and preference towards library classification schemes between academic library catalogers and other employees.

The research questions for this study are:

1. Does a statistically significant difference exist in the perceptions towards the major library classification schemes (DDC, LCC) by academic library catalogers vs. other employees?
2. Does a statistically significant difference exist in the preference towards the major library classification schemes (DDC, LCC) by academic library catalogers vs. other employees?

Perceptions toward the major classification schemes were evaluated in the survey using four Likert questions (also displayed in appendix 1):

- Please indicate your perception of the ease of use for each of the following library classification schemes
 - Dewey Decimal System of Classification (five-point)
 - Library of Congress System of Classification (five-point)
- Please indicate your perception of the effectiveness of organization for each of the following library classification schemes
 - Dewey Decimal System of Classification (five-point)
 - Library of Congress System of Classification (five-point)

Preference toward the major classification schemes were evaluated in the survey using a multiple choice question:

- Please indicate which of the following systems of classification you prefer in general in an academic library?
 - Dewey Decimal System of Classification
 - Library of Congress System of Classification
 - No Preference

Job title was part of the data we collected, but did not previously report. To analyze differences in response, the response data for catalogers and for non-catalogers were retrieved in two separate groups. For the perception data, we used analysis of variance (ANOVA). There has been some disagreement in the statistical community as to whether ANOVA is appropriate for ordinal level data like Likert scales, but, for this study, we have sided with those in favor of ANOVA because this

will produce the most meaningful findings for readers (Norman, 2010). For the ANOVA tests, the independent variable groups were catalogers and non-catalogers, and the dependent variable groups were the Likert scale ratings.

For the preference data, the question offered multiple choice answers (DDC, LCC, no preference). All variables were nominal level data; thus, the chi-square test of independence is the most appropriate test to use to study statistical difference. The variables in this study were whether the respondent was a cataloger or non-cataloger and the response to the question *which scheme do you prefer in general...* When the resulting statistic was found to be significant for the ANOVA/chi-square, the effect size was also calculated. This will give a very clear picture as to whether a statistically significant difference exists between the groups of catalogers and non-catalogers and the strength of the difference.

Results

For clarity, it is important that there *is* a difference in preference between Dewey Decimal and Library of Congress Classification *in general* among the population of library employees. For perception of ease of use, there is a significant difference in perception between DDC and LCC, $F(1, 1534) = 312, p < 0.001, r = 0.41$ (with the large F -value and small p -value – well below the .05 threshold for significance – indicating a strong difference between in the amount of respondents favoring LCC and the amount favoring DDC). For effectiveness of organization, there is a significant difference in perception between DDC and LCC, $F(1, 1478) = 383, p < 0.001, r = 0.45$ (again, indicating a significantly larger number of respondents favor LCC than DDC, and this unlikely to be due to sample error alone). 83% of respondents ($n = 639$) prefer Library of Congress Classification, as opposed to 6% ($n = 46$) that prefer DDC, and 11% ($n = 85$) that have no preference. Statistically speaking, the chance of making an error in the claim that academic library employees prefer LCC to DCC is nil: Roughly, there is a one in greater-than 10,000 chance that the observed difference could occur at random. So we can definitively say that LCC is preferred. The question then becomes, what variables may cause the level of preference to change? This is where we can use our inferential statistics to examine whether a difference exists among catalogers' and non-catalogers' perceptions and preferences.

For the perception of ease of use for Dewey Decimal Classification in academic libraries, there was no significant difference among the populations of catalogers and non-catalogers, $F(1, 768) = 0.04, p = 0.84$. The mean value for perception among catalogers was 2.9, with a standard deviation of 1.31 ($n = 319$). The mean value among non-catalogers was 2.92, with a standard deviation of 1.38 ($n = 451$). The difference in mean values among the two groups is a mere 0.02 (or roughly 0.5%); the difference in standard deviation is only 5%. Essentially, catalogers and non-catalogers have *no* statistical difference in their perceptions of ease of use for Dewey Decimal Classification.

For the perception of ease of use for Library of Congress Classification in academic libraries, there was no significant difference among the populations of catalogers and non-catalogers, $F(1, 768) = 0.37, p = 0.54$. The mean value among catalogers was 3.92, with a standard deviation of 0.81 ($n = 319$). The mean value among non-catalogers was 3.88, with a standard deviation of 0.96 ($n = 451$). This difference in mean values among the two groups is only 0.04 (1%), and difference in standard deviation is 19%. Again, this indicates *no* statistical difference in perceptions of ease of use for Library of Congress Classification among catalogers and non-catalogers.

For the perception of effectiveness of organization for Dewey Decimal Classification in academic libraries, there was no significant difference among the populations of catalogers and non-catalogers, $F(1, 728) = 0.01, p = 0.93$. The mean value among catalogers was 2.66, with a standard deviation of 1.41 ($n = 306$). The mean value among non-catalogers was 2.65, with a standard deviation of 1.48 ($n = 424$). The difference in mean is only 0.01 (0.3%), and standard deviation is only 5%. There is *no*

statistical difference between the perceptions toward Dewey Decimal Classification's effectiveness of organization among catalogers and non-catalogers.

For the perception of effectiveness of organization for Library of Congress Classification in academic libraries, there was no significant difference among the populations of catalogers and non-catalogers, $F(1, 752) = 0.47$, $p = 0.49$. The mean value among catalogers was 3.94, with a standard deviation of 0.86 ($n = 315$). The mean value among non-catalogers was 3.89, with a standard deviation of 1.07 ($n = 439$). The difference in the mean values is 0.05 (1%), and standard deviation is 24%. For the fourth time, *no* statistical difference is found between cataloger and non-cataloger perceptions.

None of the perception statistics show any significant difference. In fact, they show that, statistically speaking, we should accept null hypothesis that there is *no* difference. We found no evidence that a library employee's identification as a cataloger has any effect on their perception of the quality of Library of Congress and Dewey Decimal Classification schemes. These findings, however, do not indicate preference. An examination of this relationship would be based on the survey question: "What library classification scheme do you prefer, in general, for use in an academic library?"

A chi-square test of independence was performed to examine the relation between cataloger/non-cataloger status and preference for Dewey Decimal, Library of Congress, or no preference for library classification scheme. The relation between these variables was significant, $X^2(2, N = 770) = 8.85$, $p = .012$, $\phi = 0.11$. Compared to non-catalogers, catalogers were less likely to prefer DDC or to have no preference, and were more likely to prefer LCC.

Discussion

The statistical analyses performed on the data indicate that there is no significant difference in perception of Dewey Decimal and Library of Congress Classification schemes among academic library catalogers and non-catalogers; however the chi-square test does indicate a significant difference in preference. How might this difference be described in light of the absence of the perception/preference correlation?

Some of the demographics of the cataloging librarians (non-paraprofessional) are as follows:

- 10% use Dewey currently in their library, versus 83% LCC
- Virtually all (>95%) have a Master of Library Science/PhD degree
- 52% have worked in libraries for 5-20 years
- 64% work in institutions with 10,000 or more students

Some demographics of the non-catalogers:

- 15% use DDC currently in their library, versus 80% LCC
- 71% have a Master of Library Science/PhD degree
- 45% have worked in libraries for 5-20 years
- 60% work in institutions with 10,000 or more students

The statistics are not tremendously different, but it appears that a very small change in some of these demographics does have a profound effect on preferences. For instance, for preference towards the classification schemes based on the scheme currently used, a chi-square test reveals a strong significant relationship, $X^2(2, N=770) = 94.19$, $p < 0.001$, $\phi = 0.36$. The strength of this relationship is stronger than the relationship with whether or not the respondent is a cataloger, suggesting that the 5% difference in scheme currently used could play a major part in the difference based on job title. In other words, scheme currently used by a library employee has a large effect on preference and perceptions, more so than any other variable.

In previous articles, we have used a set of beliefs influenced by Robert Zajonc's (1968) familiarity principle to describe the findings, which indicate much more strongly, than any other demographic factor, that the system currently used correlates to the preferred classification scheme. In this paper we have shown that a difference exists in perception among catalogers towards library classification schemes but also that this difference may be described by scheme currently in use. As we entered this research project, we anticipated a thoughtful debate about the positives and negatives of each classification scheme; however, our outcomes are best described simply by familiarity.

Conclusion

Whether or not an individual works as a cataloger has no effect perceptions of ease of use or effectiveness of organization for either Dewey Decimal or Library of Congress Classification. The ratings of these schemes are, essentially, statistically identical. While there is a small difference in preference towards the classification schemes, this can be explained by other demographic factors (confounding variables). Thus, we cannot conclusively state that status as a cataloger affects preference either. For all practical intents and purposes, the opinions of catalogers and non-catalogers towards the library classification schemes are the same.

References

- Cox, E. J., & Myers, A. K. D. (2010). What is a professional cataloger? Perception differences between professionals and paraprofessionals. *Library Resources and Technical Services*, 54(4), 212-226. <https://doi.org/10.5860/lrts.54n4.212>
- Lund, B. D., & Agbaji, D. A. (2018a). What scheme do we prefer? An examination of preference between Library of Congress and Dewey Decimal Classification among US-Based academic library employees. *Knowledge Organization*, 45(5), 380-392. <https://doi.org/10.5771/0943-7444-2018-5-380>
- Lund, B. D., & Agbaji, D. A. (2018b). Use of Dewey Decimal Classification by academic libraries in the United States. *Cataloging & Classification Quarterly*, 56(7), 1-9. <https://doi.org/10.1080/01639374.2018.1517851>
- Norman, G. (2010). Likert scales, levels of measurement and the “laws” of statistics. *Advances in Health Sciences Education*, 15(5), 625-632. <https://doi.org/10.1007/s10459-010-9222-y>
- Shorten, J., Seikel, M., & Ahrberg, J. H. (2005). Why do you still use Dewey? Academic libraries that continue with Dewey Decimal Classification. *Library Resources and Technical Services*, 49(2), 123-136. <https://doi.org/10.5860/lrts.49n2.123>
- Xu, H. (1996). The impact of automation on job requirements and qualifications for catalogers and reference librarians in academic libraries. *Library Resources and Technical Services*, 40(1), 9-31. <https://doi.org/10.5860/lrts.40n1.9>
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9(2), 1-27. <https://doi.org/10.1037/h0025848>

Appendix

Survey of Academic Library Faculty/Staff Preferences of Library Classification Schema

1. Please indicate if the library in which you are employed uses the Dewey Decimal System of Classification or the Library of Congress System of Classification for the majority of its collections
 - a. Dewey Decimal Classification Scheme
 - b. Library of Congress Classification Scheme
 - c. Other
 - d. Not Sure
2. Please indicate if you have received a MLS/MLIS/PhD in Library and Information Science
 - a. Yes, I have a MLS/MLIS/PhD Degree
 - b. No, I do not have a MLS/MLIS/PhD Degree
 - c. I am currently pursuing an advanced degree
3. Please indicate which job title describes the MAJORITY of your duties in your current position
 - a. Cataloger
 - b. Reference/Instruction
 - c. Administration
 - d. Special Collections/Archives
 - e. Systems
 - f. Collection Development
 - g. Outreach
 - h. Circulation
 - i. Other
4. Please indicate how much experience you have working in a library in any capacity
 - a. 5 years or less
 - b. 6-10 years
 - c. 11-15 years
 - d. 16-20 years
 - e. 21-25 years
 - f. 26-30 years
 - g. 31-35 years
 - h. Over 35 years
5. Please indicate the number of full-time or FTE students at the university at which you work
 - a. Two-year small: 1999 students or less
 - b. Two-year medium: 2000-4999 students
 - c. Two-year large: 5000 student or more
 - d. Four-year small: 2999 students or less
 - e. Four-year medium: 3000-9999 students
 - f. Four-year large: 10000 students or more
 - g. Other

6. Please indicate the geographic region in which your library is located (NOTE: based on U.S. Census divisions – map was provided for survey respondents)
 - a. New England
 - b. South Atlantic
 - c. East South Central
 - d. West South Central
 - e. East North Central
 - f. West North Central
 - g. Mountain
 - h. Pacific
7. Please indicate on the sliding scales below your satisfaction on ease of use with each of the following library classification schemes. If you have no experience with a scheme, select 0 and your response will not be counted (Likert scale)
 - a. Dewey Decimal
 - b. Library of Congress
8. Please indicate on the sliding scales below your satisfaction with the effectiveness of organization with each of the following library classification schemes. If you have no experience with a scheme, select 0 and your response will not be counted (Likert scale)
 - a. Dewey Decimal
 - b. Library of Congress
9. Please indicate which of the following systems of classification you prefer IN GENERAL IN AN ACADEMIC LIBRARY
 - a. Dewey Decimal
 - b. Library of Congress
 - c. No preference
10. Please indicate which of the following systems of classification you prefer AS AN ACADEMIC LIBRARY USER
 - a. Dewey Decimal
 - b. Library of Congress
 - c. No preference
11. Please indicate which of the following systems of classification you prefer AS AN ACADEMIC LIBRARY FACULTY/STAFF MEMBER
 - a. Dewey Decimal
 - b. Library of Congress
 - c. No preference
12. In reference to the previous question ("Please indicate which of the following systems of classification you prefer AS AN ACADEMIC LIBRARY FACULTY/STAFF MEMBER"), please provide any additional information about why you prefer one classification scheme over the other
13. If your library considered, is considering, or made the switch from one classification scheme to another scheme during your tenure at the library, please describe what factors you believe contributed to the decision whether or not to make the switch (e.g. "We switched from x classification system to y classification system because.....")