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Megan Hodge

Virginia Commonwealth University, mlhodge@gmail.com

Nicole Spoor

University of Texas at Arlington, della.spoor@uta.edu

Cassidy Sheehan

University of Florida

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Recommended Citation

Hodge, M., Spoor, N., & Sheehan, C. (2021). Qualities of academic librarians who advance into middle management: An exploratory factor analysis. *Journal of Library Administration*, 61(5). <https://doi.org/10.1080/01930826.2021.1924531>

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Qualities of Academic Librarians Who Advance into Middle Management:

An Exploratory Factor Analysis

Megan Hodge,^{1*} Nicole Spoor,² and Cassidy Sheehan³

¹Head, Teaching & Learning and Assistant Professor, VCU Libraries, Virginia Commonwealth University, Richmond, VA, USA

²Assistant Department Head of Teaching & Learning, TA Libraries, University of Texas at Arlington, Arlington, TX, USA

³Doctoral Student, Department of English, University of Florida, Gainesville, FL, USA

*Correspondence about this article may be addressed to mlhodge@vcu.edu.

Megan Hodge can be found on Twitter at @mlhodge and on LinkedIn at [linkedin.com/in/mlhodge](https://www.linkedin.com/in/mlhodge). Her ORCID ID is 0000-0003-3185-6111.

Nicole Spoor can be found on Twitter at @ardentlibrarian and on LinkedIn at [linkedin.com/in/nicole-spoor-036bb538](https://www.linkedin.com/in/nicole-spoor-036bb538).

Abstract

The path to management is difficult for academic librarians without formal supervisory experience, especially in public services. However, little research on how frontline librarians without supervisory experience advance into middle management has been conducted. To determine the extent to which a relationship between certain personal characteristics and librarians' likelihood to advance exists, a survey was administered to public services librarians who had been promoted into middle management within the previous five years. Exploratory factor analysis revealed that charismatic presence, long-term thinking, instruction experience, customer service orientation, interpersonal skills, and ability to achieve tenure/promotion in rank contributed to librarians' successful advancement.

Keywords

middle management; promotion; public services; advancement; academic librarians; exploratory factor analysis

Word count

7794 with appendices; 5574 without appendices

The path to management for first-level academic librarians working in public services is not straightforward as it is in other types of libraries, with few if any stepping-stone positions between the front lines and department head. While individual librarians have anecdotally explained their paths to management on blogs and in other informal forums, little formal research on this topic has been conducted.

While no one list of competencies exists in the literature, researchers have alluded to various knowledge and skills that make moving into a management position in an academic library without prior supervisory experience a possibility. Conventional skills such as the ability to organize or teach are sometimes mentioned, but much of the literature focuses on the necessity of new leaders to have a variety of soft skills like a collaborative nature and communication expertise in order to be successful.

This article details the quantitative portion of an exploratory mixed methods study begun in 2015. The first, qualitative phase of the study consisted of a document analysis of job advertisements posted between 2010–2015 for first-level supervisory public services positions in academic libraries, interviews with eight public services managers who had advanced into first-level managerial positions without previous supervisory experience, and interviews with ten academic librarians who had served on search committees for first-level public services managerial positions where candidates without formal supervisory experience had been selected. The intent of the study's first phase was to identify the qualities possessed and strategies used by librarians who successfully advanced into management positions without previous formal supervisory experience. These identified qualities, which were also informed by the literature, were hypothesized to comprise dimensions of the construct that will hereafter be referred to as Promotability.

It was therefore hypothesized that candidates who successfully advanced into middle management public services positions in academic libraries without having prior formal supervisory experience had some combination of the eight skills and personality traits identified during the qualitative phase: the ability to collaborate on a team, interpersonal skills, oral communication skills, the ability to achieve promotion or tenure, charisma, interest in big-picture library issues, a customer-service orientation, and instruction experience. Exploratory factor analysis was used to determine whether the skills and traits hypothesized from previous research aligned with the data. Respondents were also asked to rank the importance of these eight skills/traits in their being hired into their first management position, and Kendall's *W* was used to determine the extent to which respondents agreed in their rankings.

Literature Review

Barriers to Advancement

Several authors have described barriers to career progression in academic libraries. Renaud & Murray (2003) identified potential impediments including hiring practices that favor candidates who already have supervisory experience, academic libraries not prioritizing leadership development among their employees, and flat organizational structures. These flat organizational structures are especially prevalent in the public services divisions of academic libraries, which often have only one or two managerial layers between frontline librarians and library deans. This results in there being few first-level supervisory position opportunities, creating stiff competition among the academic public services librarians aspiring to these positions (Corcoran & McGuinness, 2014). Mosley (2014) also found that search committees exhibit bias toward candidates who had already worked in formal managerial positions, rather than evaluating candidates on their overall previous work performance, interview performance,

or application materials. This bias could prevent qualified librarians from being hired into middle management roles if they are competing with candidates who already have the desired management experience. Librarians wishing to advance may therefore find themselves in need of experience they do not yet have in order to obtain a position that would provide the necessary experience.

Competencies and Qualities of Library Middle Managers

Other authors, warning that librarians should not expect to move up organizational hierarchies on seniority alone, have identified various competencies and skills that library managers in general ought to have, though these have changed over time. Bridgland (1999), for example, emphasized that career progression and promotion are increasingly an individual responsibility and that aspiring library managers must develop skills and exceed performance expectations to be promoted.

Important skills for library managers highlighted by the American Library Association (n.d.) include directing, planning, organizing, staffing, coordinating, budgeting, and evaluating; however, Giesecke and McNeil (2010) claim that these skills are outdated and that managers must change their focus from completing functional tasks to sharing leadership, developing staff, and harnessing organizational power. Lynch and Smith (2001) include technical, interpersonal, communicative, and instructional skills, though they state that behaviors are becoming more valued than hard skills. Research by Rutledge (2020) also indicates that soft skills are just as or more important than hard skills. She found that a collaborative nature and emotional intelligence helped the women in her study be successful in a management role. Another example is Creelman (2016), who argued that middle managers should be able to successfully coach their staff. Successful coaching involves the ability to build trust, listen, and empathize with others,

further reinforcing the idea that soft skills are important for those in management positions. Additionally, as Hall-Ellis and Greal (2013) point out, no standardized list of competencies exists. Likewise, Allner (2008) states that one person cannot fulfill all of the roles of an ideal manager and stresses the importance of shared leadership. Leadership, rather than management, has become particularly desirable in libraries, especially in light of flattening organizations and fewer management positions, as mentioned previously.

While there is increasing consensus about the importance of soft skills among aspiring middle managers, less has been written in the library literature about the role that charisma or personality may play in hiring decisions. There is some research to support the idea that some people are more likely to be successful in management based on their personalities. Do and Nuth (2020) noted that many of the academic library managers they interviewed noted that their personality was a driving factor in them becoming a manager.

These studies illustrate some of the barriers faced by frontline librarians seeking advancement, but do not focus on public services librarians in academic libraries, stop short of describing the skills and personality traits of candidates without supervisory experience hired into middle management positions or the relative importance of those skills and traits, and do not survey successful candidates themselves for their perspectives. The goal of this study, therefore, was to identify how academic librarians without formal management experience successfully compete for public services managerial positions and to emphasize the perspectives and lived experiences of librarians who had advanced without that formal experience.

Methods

Research Question

This study sought to answer the following question: To what extent is there a relationship between certain characteristics and academic public services librarians' likelihood to advance to managerial positions if they have no previous supervisory experience?

Sampling Procedures

An invitation to participate in a survey was posted on eight academic library public services and middle management email distribution lists on June 11, 2018, with one reminder sent on July 2, 2018. The survey closed on July 12, 2018.

Seventy-one people self-selected into the sample. Participation was limited to librarians working at large (defined as more than 10,000 full-time equivalent students, or FTE) universities who had advanced into a first-level supervisory position in a public services department within the previous five years. Respondents working at smaller institutions were excluded because at smaller academic libraries, with their much smaller staffs, even frontline public services librarians may supervise paraprofessionals or student workers. Participation was limited to librarians who had advanced within the last five years to increase the likelihood of respondents recalling their application materials and interview process. First-level supervisory positions (for example, department head or assistant director) and public services departments (such as outreach, instruction, circulation, or reference) were defined in the survey invitation and at the start of the survey itself to increase clarity around the target population because respondents self-selected into the survey.

The University of North Carolina at Charlotte's institutional review board approved this study.

Variables

The eight dimensions of the Promotability construct identified during the qualitative

phase of this study include the ability to collaborate on a team, interpersonal skills, oral communication skills, the ability to achieve promotion/tenure, charisma, interest in big-picture library issues, customer-service orientation, and instruction experience. The first three dimensions—ability to collaborate on a team, interpersonal skills, and oral communication skills—are not surprising as they commonly appear in job ads for library positions of all types, not just managerial ones. Ability to achieve promotion/tenure is another trait often seen in job ads at institutions where librarians hold faculty status. Charisma is rarely listed as such in job postings but anecdotally and in popular culture is a trait often associated with leaders. Interest in big-picture library issues means that applicants were able to connect their prospective future department's work with the larger mission and goals of their library and parent institution. The final two dimensions, customer-service orientation and instruction experience, are qualities that are more specific but not surprising for librarians seeking to advance in public services divisions. While not all public services librarians teach, it was experience that was mentioned so frequently during the qualitative phase of the study that it was included here.

Measure

In 2018, the researchers developed an instrument to measure this construct of Promotability and that survey is the focus of this article. The survey (see Appendix A) included 24 five-point Likert questions, three for each of the eight dimensions hypothesized to comprise the construct of Promotability as identified during the qualitative phase of this study: interest in big-picture library issues, oral communication skills, instruction experience, ability to achieve tenure/promotion in rank, charisma, customer-service orientation, ability to collaborate on a team, and interpersonal skills. It also included one item asking respondents to rank the eight factors hypothesized to comprise the Promotability construct.

Qualtrics survey software was used to administer the instrument.

Missing Data

A total of seventy-one participants completed the survey. Thirty-one participants did not complete all of the 24 items on the eight Promotability dimensions. These cases were automatically dropped via listwise deletion during data analysis, resulting in an exploratory factor analysis (EFA) sample size of 40 participants.

Fifty-eight participants completed the eight parts of the ranked item. The remaining thirteen participants were automatically dropped via listwise deletion during data analysis.

Data Analysis

Responses were reviewed for outliers. All observations were retained.

The 24 items on the eight Promotability dimensions were reverse-coded so that stronger agreement with statements resulted in higher Likert scale scores. No items exhibited problematic distribution, with skewness values all falling below 2.0 and kurtosis values all falling below 7.0 (see Table 1).

Exploratory factor analysis (EFA) was used to analyze the dimensional data in Stata version 14.2. EFA is a statistical technique that “assist[s] researchers in identifying and/or understanding the nature of the latent constructs underlying the variables of interest[...]. EFA should be used for situations in which the variables to be analyzed are either newly developed or have not previously been analyzed together” (Bandalos & Finney, 2019, p. 99-101). EFA is used here because this study is the first to identify the construct of Promotability among academic library public services librarians, and as yet there is no other empirical evidence of the dimensions of this construct. Promax rotation, a method of oblique rotation, was used to interpret factors as correlation among several factors was expected.

Kendall's *W* was used to analyze the ranked item using SPSS version 25. Before analyzing the statistical significance of the data distribution, it is important to first assess whether respondents agree in their rankings: a given item may appear to be the most popular, but upon reviewing the data it may be revealed that the item was also ranked last by many respondents. Kendall's *W* was chosen for its ability to evaluate agreement among a large number of raters.

Results

To answer the research question—to what extent is there a relationship between certain characteristics and academic public services librarians' likelihood to advance to managerial positions if they have no previous supervisory experience—the authors used exploratory factor analysis and Kendall's *W*. Exploratory factor analysis allowed the researchers to determine the composition of factors comprising the construct of Promotability, hypothesized from the qualitative phase of this study to consist of eight dimensions: interest in big-picture library issues, oral communication skills, instruction experience, ability to achieve tenure/promotion in rank, charisma, customer-service orientation, ability to collaborate on a team, and interpersonal skills. Kendall's *W* allowed the researchers to determine whether respondents agreed in how important each of these eight dimensions were to their own advancement into middle management positions.

Exploratory Factor Analysis

Initial correlations and coefficient alphas were calculated for the items comprising each of the eight hypothesized dimensions of Promotability to determine the extent to which items within each dimension were related (see Appendix B). In most cases, within-dimension correlations were moderate ($0.30 \leq r \leq 0.70$) and statistically significant ($p < .05$). Some dimensions may have had low intercorrelations due to a lack of variability (Beavers et al., 2013);

for example, responses to items 28_4 and 28_8 each had a range of only two points. Within-group consistency ranged from .48 to .89; low within-group consistency may have been due to the instrument having insufficient items to address the breadth of these dimensions, as each dimension consisted of only three items (Bandalos & Finney, 2019).

From the qualitative phase of the study, it was hypothesized that there would be eight factors for the latent variable (construct) of Promotability, or one for each dimension. Principal component factor analysis identified eight factors with an eigenvalue greater than one, and scree plot analysis also suggested eight viable factors (see Appendix C). Solutions with six, seven, and nine factors were also modeled for comparison given the limited empirical evidence about the number of dimensions comprising the construct of Promotability.

Additionally, six-, seven-, eight-, and nine-factor solutions excluding item 25_3 (My understanding of the department's role in achieving the library's mission contributed to my being offered the job) were modeled. In the initial dimensional correlations, this item correlated poorly with the other items comprising the interest in big-picture library issues dimension (item 25_1, My vision for the department contributed to my being offered the job, $r = 0.03$, and item 25_2, My interest in big-picture issues at the library/university contributed to my being offered the job, $r = 0.08$) and these correlations were not statistically significant. Further, this item loaded onto multiple factors, sometimes negatively, in all of the modeled solutions and impacted the factor loadings of other items in conceptually perplexing ways. Additionally, dropping this item resulted in a slight increase in solution KMO, from .4172 for solutions with item 25_3 to .4224 for solutions without it. For these reasons, item 25_3 was dropped from the final solution.

A solution was also modeled with only nine items, those comprising the three dimensions with the highest internal consistency and within-group correlations: customer-service orientation,

instruction experience, and charisma. This solution aligned with the hypothesized structure, with three factors that each had the expected three items. The solution also achieved simple structure status, with items loaded strongly (values between .82 and .93) onto their expected factors and minimal loadings onto other factors (values between $-.13$ and $.13$). In other words, there were no cross-loadings above the .15 level. The percentage of cumulated variance these nine items explained among these three factors was 80.36%. This solution had a Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value of .71, considered a middling degree of common variance (Beavers et al., 2013). Ultimately, this solution was not retained, as the remaining items from the instrument were still theoretically and statistically relevant even though they did not behave as expected. Removing these items would therefore not have accurately reflected the hypothesized construct (Beavers et al.).

The final solution consisted of 23 items and six factors, which cumulatively explained 68% of the variance in the data (see Table 2).

Uniquely among the solutions modeled, this solution had no cross-loadings above .40 (the threshold recommended by Acock, 2018), no negative factor loadings, and a relatively even item distribution with at least three items loading onto each factor. All of the solutions' factor structures were examined for conceptual coherence, and the final solution also had the most conceptually reasonable factor structure (see Table 3).

All solutions were modeled with unrotated, orthogonal (varimax), and oblique (promax) rotations. Rotated solutions were modeled as there was more than one factor (Acock, 2018). Oblique rotation was chosen over orthogonal rotation as correlation among factors was anticipated (for example, between the dimensions of interpersonal skills and ability to collaborate on a team) and because the orthogonal rotations consistently had more cross-

loadings. Post-rotation analysis indicated that some factors were indeed somewhat correlated (see Appendix D).

The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) for the final solution is .42, which is below the minimum acceptable threshold of .80 (Beavers et al., 2013). The reliability of the final solution comprising 23 items is adequate ($\alpha = .81$).

Kendall's *W*

Kendall's *W* was run to determine if there was agreement between respondents' ranking of the traits that led to their being offered middle-management positions in academic libraries. 58 respondents were asked to rank eight traits (charisma, oral communication skills, ability to achieve promotion/tenure, customer service orientation, interest in big-picture library issues, instruction experience, ability to collaborate on a team, and interpersonal skills) from 1 (most important) to 8 (least important). Survey respondents' agreement was statistically significant and moderate, $W = .289, p < .001$.

Respondents ranked interpersonal skills as the dimension that they perceived as contributing most to their being hired into their first middle management position, and ability to achieve promotion/tenure as the dimension they perceived as contributing least (see Table 4).

Discussion

Interpretation

While eight dimensions were originally hypothesized for the construct of Promotability (interest in big-picture library issues, oral communication skills, instruction experience, ability to achieve tenure/promotion in rank, charisma, customer-service orientation, ability to collaborate on a team, and interpersonal skills), the final solution consisted of only six factors. Of these six factors, three were previously hypothesized dimensions (Factor 2, Customer-Service Orientation;

Factor 4, Instruction Experience; and Factor 5, Ability to Achieve Tenure/Promotion in Rank), with all three of each dimensions' items and only those dimensions' items loading strongly onto those factors.

The three other factors consist of items from at least two dimensions. Factor 1, Charismatic Presence, consists of two items from the hypothesized oral communication skills dimension and three items from the hypothesized charisma dimension. Together, these items measure respondents' perceptions of their interview presentations, ability to speak articulately, charisma, self-confidence, and personal energy. As public speaking and oral communication skills are frequently (though not always) tied to charisma, the structure of the Charismatic Presence dimension is conceptually logical. This factor had relatively high internal consistency ($\alpha = .77$) and would exceed .80 were item 25_4 (My strong presentation contributed to my being offered the job) excluded. The improved performance of the factor without the presentation item could be attributable to presentations comprising elements beyond public speaking, such as slide deck development.

Factor 3, Interpersonal Skills, consists of one item from the hypothesized oral communication skills dimension, one item from the hypothesized ability to collaborate on a team dimension, and three items from the proposed interpersonal skills dimension. Together, these items measure listening skills, transparent communication with collaborators, receptiveness to feedback, positive attitude, and flexibility in working with people of different communication styles. While facility with listening and communicating transparently were not items included in the original hypothesized dimension of interpersonal skills, they are arguably indeed aspects of working successfully with others (i.e., interpersonal skills). This factor had the lowest reliability of the final six ($\alpha = .63$) and the item with the lowest loading still above .40 (28_8, My positive

attitude contributed to my competitiveness for a middle management position, with a loading of .41) and could perhaps have benefitted from additional or rewritten items.

Finally, Factor 6, Long-Term Thinking, consists of two items from the hypothesized dimension of interest in big-picture library issues and one item from the hypothesized ability to collaborate on a team dimension. Together, these items measure having had a vision for the library unit that the respondent would oversee as the successful candidate, an interest in larger library issues beyond the department the respondent would oversee, and accountability for the respondent's actions. While the last item might at first glance appear unrelated to the first two items, accountability is a key attribute of managers, who are held responsible for the success or failure of their team's initiatives regardless of the manager's personal participation in that work. This factor also exhibited moderate internal consistency ($\alpha = .69$).

The poor performance of item 25_3 (My understanding of the department's role in achieving the library's mission contributed to my being offered the job) is perplexing, as conceptually it ought to be highly correlated with the other items within its hypothesized dimension of interest in big-picture library issues. Validation of scale items with content experts (in this case, members of the target population of academic librarians without previous supervisory experience who recently advanced into middle management) may elucidate the unexpected behavior of this item.

The success of the nine-item, three-factor solution indicates that, conceptually, there is a strong core of factors to this construct. Of the remaining hypothesized five dimensions, several had two highly correlated items and strong item-level internal consistency and one less-well-performing item. These underperforming items were retained in the final solution because otherwise these factors would be under-identified (not representative of all aspects of the factor)

as the factors would then have less than three items each (Beavers et al., 2013). However, additional stable factors might be obtained with items that better capture the nature of these dimensions. The six-factor final EFA solution did reveal that some dimensions hypothesized from the qualitative phase of the study—specifically, interpersonal skills and ability to collaborate on a team—may, in fact, be a single dimension.

The six factors in the final EFA solution were named Charismatic Presence, Customer Service Orientation, Interpersonal Skills, Instruction Experience, Ability to Achieve Tenure/Promotion in Rank, and Long-Term Thinking. Conceptually, this final EFA solution of six factors is a reasonable one that comports with the literature and the findings from the qualitative phase of this study. While Hall-Ellis and Grealy (2013) found that no standardized list of competencies exists for academic library managers, there is agreement that behavioral and soft skills including interpersonal, instructional, communication, and leadership skills are important (Creelman, 2016; Giesecke & McNeil, 2010; Lynch & Smith, 2001; Rutledge, 2020). These map well onto two of the final six factors identified during the exploratory factor analysis, Interpersonal Skills and Instruction Experience. Some traits that were hypothesized to comprise the Promotability construct do not appear in the literature because this topic has not been studied in depth, but were included on the survey because of their prevalence during the interview stage of this study. These traits—charisma and interest in big-picture library issues—were retained in modified form in the final six-factor solution as Charismatic Presence and Long-Term Thinking. Because these traits neither appear in the literature nor frequently appear in job ads for first-level supervisory positions and are therefore more abstract, more conjecture went into operationalizing these potential dimensions into survey questions. As the composition of these dimensions was therefore the most uncertain, the authors anticipated that these items might not perform well on

the survey. These two factors did appear in the EFA solution with conceptually reasonable modifications, with charisma becoming Charismatic Presence and interest in big-picture library issues becoming Long-Term Thinking. The final two factors in the EFA solution were Customer Service Orientation and Ability to Achieve Tenure/Promotion in Rank. These factors were composed of the same items—and only the items—in their identically named proposed dimensions of customer service orientation and long-term thinking. These dimensions were hypothesized to constitute part of the construct of Promotability both because these are traits frequently found in job ads for first-level supervisory positions and because they were frequently mentioned during the interview phase of this study. The six factors comprising the final EFA solution are therefore in conceptual alignment with the literature where it exists on this topic, recent job ads for first-level public services supervisory positions in academic libraries, and the findings from the interview phase of this study.

Of the eight originally hypothesized dimensions, respondents ranked interpersonal skills, interest in big-picture library issues, and ability to collaborate on a team as most important. The first and third of these, interpersonal skills and ability to collaborate on a team, were consolidated into a related factor in the EFA solution also called Interpersonal Skills. The importance of middle managers being able to successfully work with others both within their departments and across the library comports with the literature, which specifically mentions interpersonal skills as a trait important for managers (Allner, 2008; Giesecke & McNeil, 2010; Lynch & Smith, 2001). It also aligns with the findings from the qualitative phase of the study, where interpersonal skills frequently appeared in job ads for middle management positions and was frequently mentioned by interviewees. This skill may be particularly important for librarians without formal supervisory experience seeking to advance into middle management positions as

they will not be able to draw from past managerial experience to lead their teams, and must instead rely upon their “people skills.” While interest in big-picture library issues was not a skill that regularly appeared among required qualifications in job ads for middle managers, it was a strong theme that emerged from the interview data. Interest in big-picture library issues, or the ability to connect a prospective future department’s work with the larger mission and goals of the library and parent institution, may be particularly important for applicants without previous managerial experience and who have previously only worked on the front lines. Candidates who are able to articulate how the department as a whole contributes to the larger institution may therefore be more likely to persuade hiring committees and other stakeholders that their vision for their prospective department aligns with that of their division, library, and university as well as with the values of the prospective department’s members and library leadership.

Of the eight originally hypothesized dimensions, respondents ranked charisma, instruction experience, and ability to achieve promotion/tenure as least important. While Lynch and Smith (2001) argued that instructional skills were important for library managers, not all public services librarians or public services departments are engaged in instruction, so it is not surprising that this was ranked near the bottom of the list of traits and skills impacting librarians’ promotability. Similarly, not all academic librarians have faculty status and at those institutions where librarians are eligible for tenure or promotion in rank, successful candidates for first-supervisory positions, which by definition are not entry-level and require several years experience as a librarian, might be appointed at the rank of associate professor because these positions are managerial and/or because of the candidates’ previous years of experience or history of scholarship. It is therefore not surprising that this trait would be ranked as least important by respondents. It is both understandable and surprising that charismatic presence

ranked as one of the least important traits. While this trait was mentioned by 38.9% of interviewees in the qualitative stage of the study, charisma can be difficult to define quantitatively, so survey respondents may have had varying understandings of this dimension of Promotability. It is surprising that it did not rank higher, because two of the three items on which it is based focus on communication skills. Communication is often mentioned in the literature as an important trait for those in management positions (Creelman, 2016; Lynch & Smith, 2001).

Limitations

While these findings are interesting, the sample size was insufficient for obtaining a stable factor solution given the number of proposed dimensions to the Promotability construct (Bandalos & Finney, 2019). As noted by Beavers et al. (2013), adequacy of a sample's size for EFA cannot be determined until after the final solution has been modeled. With four of the final six factors having at least one item with only moderate loadings (below .70), the sample size of 40 was inadequate.

Because a nonprobability sampling method was used and participants self-selected into the sample, responses may be biased or not representative of the population of interest (public services librarians who have advanced into a first supervisory position at an academic library). Further, the identified factors and relative importance of these factors are based upon the self-reported perceptions of former job candidates, and therefore may not accurately reflect the true reasons these candidates were hired into their positions.

EFA is by design an exploratory method, and the obtained factors are entirely dependent on the items chosen for inclusion in the solution. There are likely additional items, or revised items, that could better capture the nature of these factors and the structure of the Promotability

construct. Replication of this study is needed to determine whether the factor structure obtained in this study is stable and could be generalized to the population of interest.

Implications

It is recommended that a follow-up study with a larger sample be conducted to investigate the revised dimension of Promotability. It would consist of the same nine high-performing items for the three dimensions of customer-service orientation, instruction experience, and charisma; a modified subscale for interpersonal skills that accounts for the ability to collaborate on a team being part of the dimension; and subscales for the dimensions of interest in big-picture library issues, ability to achieve tenure/promotion in rank, and oral communication skills modified to revise problematic items. Librarians from the target population ought to be consulted in the revision of items and in the development of the modified interpersonal skills subscale. Another factor analysis could then be conducted to see if this revised Promotability scale resulted in a more stable factor structure than the one described in this article. Following the identification of a stable factor structure, it would be useful to survey librarians who had hired candidates without formal supervisory experience to determine the extent to which they agreed with former applicants as to the relative importance of different personality traits and skills.

Conclusion

It can be difficult—but is not impossible—for frontline public services librarians in academic libraries to advance into middle management positions if they do not have previous formal supervisory experience. This study sought to identify the qualities that candidates who successfully made that transition had in common and which qualities those candidates felt were most influential in being hired despite their lack of formal management experience—information

which is currently absent in the literature. Study findings may be useful to other frontline public services librarians interested in management by making explicit some of the criteria that hiring committees may tacitly be applying to candidates without formal supervisory experience, and that can be addressed by applicants in their application materials and during interviews.

Acknowledgements

The authors would like to thank Laura W. Gariepy for her feedback on the study's design and sampling strategy.

Declaration of Interest

The authors declare that there are no conflicts of interest with this study.

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Appendix A

Survey Instrument

Q1 Consent to be Part of a Research Study

Title of the Project: From Frontline Librarian to Middle Manager

Principal Investigator: Nicole Spoor, MSIS, UNC Charlotte

Principal Investigator: Megan Hodge, MLS, Virginia Commonwealth University

Thank you for your interest in our survey! Participation in this study is voluntary. The information provided below is to help you decide whether to participate. If you have any questions, please ask.

The purpose of this research is to increase understanding of the advancement paths of public services librarians at large research institutions. While individual librarians have anecdotally explained their path to management on blogs and in other informal forums, little formal research into this topic has been conducted. This study aims to address that gap in the literature.

We estimate this survey will take you approximately 10-20 minutes to complete.

The potential risks of participating in this study are minimal and your participation voluntary: you may choose not to participate, or to exit the survey at any time, without penalty. Should you come to any question you prefer not to answer, you may skip it and go on to the next.

We plan to publish the results of this study. To protect your privacy, we will not include any information that could identify you. We will protect the confidentiality of the research data by removing personally identifying information prior to data analysis.

You will not benefit directly from being in this study. However, others might benefit by the increased professional knowledge base on the topic of public services librarians' advancement paths at large research institutions.

If you have questions about the survey, please contact principal investigators Megan

Hodge (Virginia Commonwealth University, mlhodge@gmail.com) and Nicole Spoor (UNC Charlotte, nicolespoor@gmail.com). Questions about your rights as a participant may be directed to the UNC Charlotte Institutional Review Board at uncc-irb@uncc.edu (Study #18-0174).

By clicking 'Agree' below, you indicate that you have read the above statement and have had an opportunity to ask questions, and that you agree to participate in the study under the terms outlined above.

We very much appreciate your help with this study. Thank you!

AGREE (1)

DISAGREE (2)

Q2 In what type of institution are you employed?

Academic library (1)

Other (2)

Q3 How many full-time equivalent (FTE) students does your institution have?

Fewer than 10,000 (1)

Between 10,001 - 16,999 (2)

More than 17,000 (3)

Q4 In which library division do you work?

Public Services (1)

Other (Please Specify) (2)

Q5 Have you advanced into a middle management position in public services since 2013?

(Sample position titles for such positions include Assistant Director for Learning Services, Coordinator of Instructional Services, or Head of Academic Outreach.)

Yes (1)

No (2)

Q17 To what extent do you agree or disagree with the following statements:

	Strongly Agree (1)	Agree (2)	No Opinion (3)	Disagree (4)	Strongly Disagree (5)
I became interested in management because it provides more opportunities for effecting change. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I became interested in management because of the higher salary. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I became interested in management because I enjoy helping others succeed in their work. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 Prior to advancing into your first middle management position in academic library public services:

	Yes (1)	No (2)
Someone in my supervisory chain was aware of and supported my interest in management. (3)	<input type="radio"/>	<input type="radio"/>
Someone in my supervisory chain gave me opportunities with the intent of making me more competitive for middle management positions. (4)	<input type="radio"/>	<input type="radio"/>
Someone outside my supervisory chain gave me advice or opportunities with the intent of making me more competitive for middle management positions. (5)	<input type="radio"/>	<input type="radio"/>

<p>for a middle management position. (4)</p> <p>My willingness to compromise contributed to my competitiveness for a middle management position. (5)</p> <p>My accountability for my actions when working on group projects contributed to my competitiveness for a middle management position. (6)</p> <p>My receptiveness to feedback contributed to my competitiveness for a middle management position. (7)</p> <p>My positive attitude contributed to my competitiveness for a middle management position. (8)</p> <p>My ability to work with people with different communication styles contributed to my competitiveness for a middle management position. (9)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>for a middle management position. (4)</p> <p>My willingness to compromise contributed to my competitiveness for a middle management position. (5)</p> <p>My accountability for my actions when working on group projects contributed to my competitiveness for a middle management position. (6)</p> <p>My receptiveness to feedback contributed to my competitiveness for a middle management position. (7)</p> <p>My positive attitude contributed to my competitiveness for a middle management position. (8)</p> <p>My ability to work with people with different communication styles contributed to my competitiveness for a middle management position. (9)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>for a middle management position. (4)</p> <p>My willingness to compromise contributed to my competitiveness for a middle management position. (5)</p> <p>My accountability for my actions when working on group projects contributed to my competitiveness for a middle management position. (6)</p> <p>My receptiveness to feedback contributed to my competitiveness for a middle management position. (7)</p> <p>My positive attitude contributed to my competitiveness for a middle management position. (8)</p> <p>My ability to work with people with different communication styles contributed to my competitiveness for a middle management position. (9)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>for a middle management position. (4)</p> <p>My willingness to compromise contributed to my competitiveness for a middle management position. (5)</p> <p>My accountability for my actions when working on group projects contributed to my competitiveness for a middle management position. (6)</p> <p>My receptiveness to feedback contributed to my competitiveness for a middle management position. (7)</p> <p>My positive attitude contributed to my competitiveness for a middle management position. (8)</p> <p>My ability to work with people with different communication styles contributed to my competitiveness for a middle management position. (9)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>for a middle management position. (4)</p> <p>My willingness to compromise contributed to my competitiveness for a middle management position. (5)</p> <p>My accountability for my actions when working on group projects contributed to my competitiveness for a middle management position. (6)</p> <p>My receptiveness to feedback contributed to my competitiveness for a middle management position. (7)</p> <p>My positive attitude contributed to my competitiveness for a middle management position. (8)</p> <p>My ability to work with people with different communication styles contributed to my competitiveness for a middle management position. (9)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 Please rank the following characteristics in terms of how much you believe they contributed towards your being offered a middle management position, where 1 = most important and 8 = least important:

- _____ Charisma (1)
- _____ Oral communication skills (2)
- _____ Ability to achieve promotion/tenure (3)
- _____ Customer service orientation (4)
- _____ Interest in big-picture library issues (5)

- _____ Instruction experience (6)
- _____ Ability to collaborate on a team (7)
- _____ Interpersonal skills (8)

Q33 If you have any comments about your experiences advancing into your first middle management position, please share them below.

Appendix B

Within-Dimension Correlations for the Construct of Promotability

Table B1

Intercorrelations for Items Comprising Interest in Big-Picture Library Issues Dimension

Item	25_1 Vision	25_2 Big picture	25_3 Mission
25_1 Vision	—		
25_2 Big picture	0.52***	—	
25_3 Mission	0.03	0.08	—

Dimension $\alpha = .48$.*** $p < .001$.

Table B2

Intercorrelations for Items Comprising Oral Communication Skills Dimension

Item	25_4 Presentation skills	25_5 Listening skills	25_6 Articulate speaking
25_4 Presentation skills	—		
25_5 Listening skills	0.44**	—	
25_6 Articulate speaking	0.36*	0.56***	—

Dimension $\alpha = .69$.* $p < .05$. ** $p < .01$. *** $p < .001$.

Table B3

Intercorrelations for Items Comprising Instruction Experience Dimension

Item	25_7 Teaching recognition	25_8 Teaching experience	25_9 Instructional strategies
25_7 Teaching recognition	—		
25_8 Teaching experience	0.80***	—	
25_9 Instructional strategies	0.67***	0.69***	—

Dimension $\alpha = .82$.*** $p < .001$.

Table B4

Intercorrelations for Items Comprising Ability to Achieve Tenure/Promotion in Rank Dimension

Item	26_1 Publications	26_2 Professional leadership	26_3 Presentations
26_1 Publications	—		
26_2 Professional leadership	0.25	—	
26_3 Presentations	0.69***	0.45***	—

Dimension $\alpha = .73$.

*** $p < .001$.

Table B5

Intercorrelations for Items Comprising Charisma Dimension

Item	26_4 Charisma	26_5 Self-confidence	26_6 Personal energy
26_4 Charisma	—		
26_5 Self-confidence	0.62***	—	
26_6 Personal energy	0.62***	0.64***	—

Dimension $\alpha = .82$.

*** $p < .001$.

Table B6

Intercorrelations for Items Comprising Customer-Service Orientation Dimension

Item	28_1 Patron patience	28_2 Patron empathy	28_3 Calmness with difficult patrons
28_1 Patron patience	—		
28_2 Patron empathy	0.65***	—	
28_3 Calmness with difficult patrons	0.85***	0.72***	—

Dimension $\alpha = .89$.

*** $p < .001$.

Table B7

Intercorrelations for Items Comprising Ability to Collaborate on a Team Dimension

Item	28_4 Transparent communication	28_5 Compromise	28_6 Accountability
28_4 Transparent communication	—		
28_5 Compromise	0.36**	—	
28_6 Accountability	0.35**	0.42***	—

Dimension $\alpha = .64$.

** $p < .01$. *** $p < .001$.

Table B8

Intercorrelations for Items Comprising Interpersonal Skills Dimension

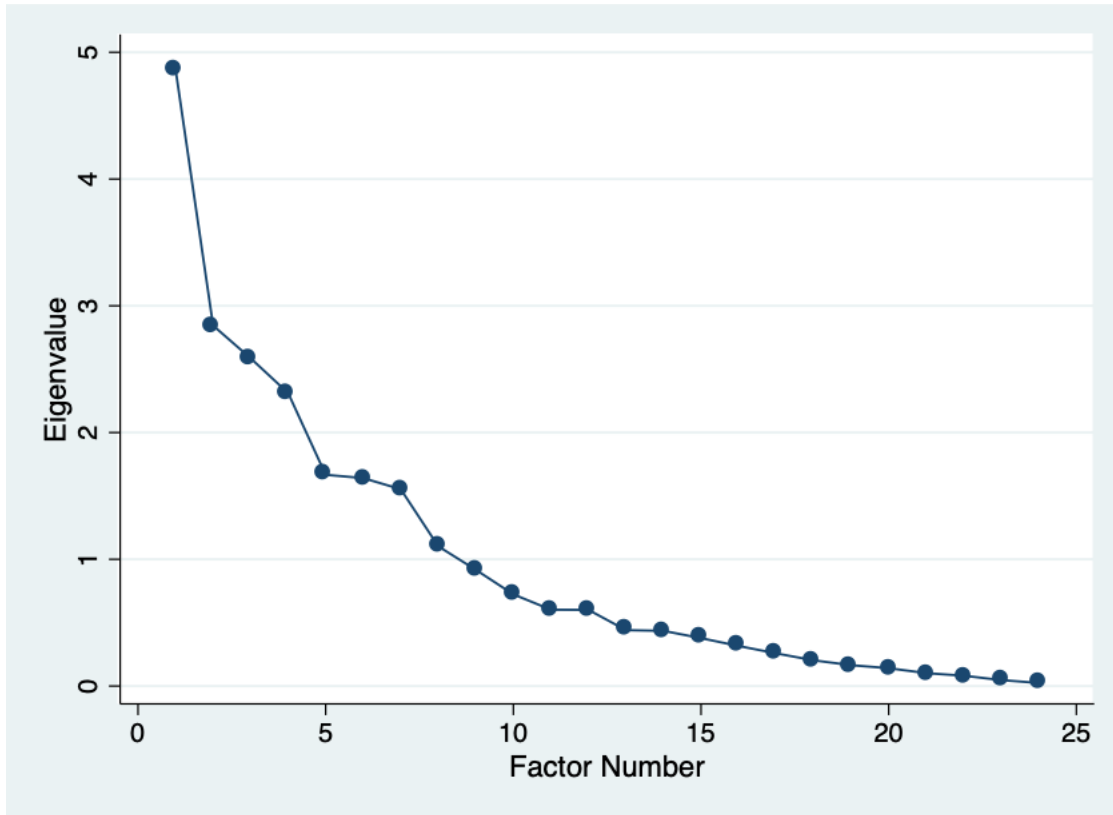
Item	28_7 Feedback receptiveness	28_8 Positive attitude	28_9 Communication flexibility
28_7 Feedback receptiveness	—		
28_8 Positive attitude	0.32*	—	
28_9 Communication flexibility	0.22	0.22	—

Dimension $\alpha = .49$.

* $p < .05$.

Appendix C

Promotability Scale Scree Plot



Appendix D

Factor Correlations

	Charismatic Presence	Customer- Service Orientation	Interpersonal Skills	Instruction Experience	Ability to Achieve Tenure/Promotion in Rank	Long- Term Thinking
Charismatic Presence	—					
Customer Service Orientation	.17	—				
Interpersonal Skills	.30	.22	—			
Instruction Experience	-.06	-.02	.06	—		
Ability to Achieve Tenure/ Promotion in Rank	.09	.12	-.09	.00	—	
Long-Term Thinking	.17	.00	.21	.11	-.11	—

Table 1*Promotability Dimension Item Frequencies and Distributions*

Item	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
25_1 Vision	3.98	1.03	-0.84	3.00
25_2 Big picture	4.17	0.87	-1.43	5.51
25_3 Mission	3.22	0.70	-0.63	3.39
Item	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
25_4 Presentation skills	4.16	0.87	-1.27	5.26
25_5 Listening skills	3.00	0.68	-0.37	3.31
25_6 Articulate speaking	2.28	0.62	-0.23	2.39
25_7 Teaching recognition	2.92	1.17	0.36	1.92
25_8 Teaching experience	3.24	1.19	-0.13	1.87
25_9 Instructional strategies	3.23	1.24	-0.10	1.66
26_1 Publications	2.69	1.28	0.42	2.07
26_2 Professional leadership	3.00	1.20	-0.19	1.90
26_3 Presentations	3.05	1.10	-0.19	2.29
26_4 Charisma	2.83	0.81	-0.27	2.56
26_5 Self-confidence	2.07	0.63	-0.06	2.51
26_6 Personal energy	2.28	0.61	-0.24	2.39
28_1 Patron patience	3.42	1.00	-0.16	2.23
28_2 Patron empathy	3.67	0.97	-0.48	2.77
28_3 Calmness with difficult patrons	3.68	1.00	-0.52	2.65

28_4 Transparent communication	2.36	0.58	-0.25	2.29
28_5 Compromise	2.84	0.70	-0.42	3.35
28_6 Accountability	3.03	0.79	-0.49	2.77
28_7 Feedback receptiveness	2.93	0.65	-0.33	3.50
28_8 Positive attitude	2.40	0.65	-0.59	2.37
28_9 Communication flexibility	3.26	0.76	-0.71	2.84

Table 2*Eigenvalues, Percentages of Variance, and Cumulative**Percentages for Factors of the 23-Item Promotability Scale*

Factor	Eigenvalue	% of variance	Cumulative %
1	4.81	20.92	20.92
2	2.83	12.31	33.24
3	2.45	10.65	43.89
4	2.31	10.04	53.93
5	1.64	7.15	61.08
6	1.60	6.97	68.05

Table 3

*Exploratory Factor Analysis with Promax Rotation
and Coefficient Alphas for Promotability Scale Items*

Item	Factor loadings
Factor 1: Charismatic Presence ($\alpha = .77$)	
25_4	.52
25_6	.61
26_4	.92
26_5	.81
26_6	.71
Factor 2: Customer Service Orientation ($\alpha = .89$)	
28_1	.89
28_2	.81
28_3	.88
Factor 3: Interpersonal Skills ($\alpha = .63$)	
25_5	.51
28_4	.70
28_7	.66
28_8	.41
28_9	.83
Factor 4: Instruction Experience ($\alpha = .89$)	
25_7	.88
25_8	.86
25_9	.88

Factor 5: Ability to Achieve Tenure/Promotion in

Rank ($\alpha = .73$)

26_1 .87

26_2 .52

26_3 .90

Factor 6: Long-Term Thinking ($\alpha = .69$)

25_1 .81

25_2 .85

28_6 .59

Note. Item descriptions may be found in Appendix A.

Table 4*Promotability Dimensions Ranked by Desirability*

Dimension	<i>M</i>	<i>SD</i>
Interpersonal skills	2.67	1.43
Interest in big-picture library issues	3.57	2.18
Ability to collaborate on a team	3.72	2.13
Oral communication skills	3.86	1.65
Customer service orientation	4.34	2.13
Charisma	5.45	1.99
Instruction experience	5.81	2.21
Ability to achieve promotion/tenure	6.57	1.72