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# Using Professional Portfolios as an End of Program Assessment

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*The goal of this study was to assess the effectiveness of the professional portfolio, as compared to comprehensive exams, as a culminating assignment in a graduate school librarianship program. An online questionnaire was sent to program completers to collect data related to the culminating assessment they completed as part of their program. Candidates enrolled in the professional portfolio class during the fall 2016 semester served as a focus group. Results were categorized into four areas: job searching and interviewing, preparedness for future career, the process of completing the culminating activity, and the impact of the culminating activity. Across all four areas, the researchers found statistically significant results showing the benefits of the professional portfolio as compared to the comprehensive exam. These findings indicate that, although the professional portfolio was considerably more time-consuming for the students, it was a more effective culminating experience than the comprehensive exam.*

## Introduction

With the emphasis in education on authentic assessment and outcome-based performance, a portfolio is increasingly the assessment of choice to demonstrate student mastery of standards, content knowledge, and skills (Dewan, 2010; Jones, Downs, & Repman, 2012). At our institution we have offered a Master of Science in Education with a concentration in School Library Media since the late 1980s. When in 2013-2014 we revamped the program into a Master of Education in School Librarianship, revising and updating the curriculum, the timing was right to shift from the comprehensive exam to a professional portfolio as the end-of-program assessment. Our rationale was that students would receive the same, or better, learning experiences from reflecting on coursework and assignments and preparing and defending a portfolio structured around the five ALA/AASL Standards for Initial Preparation of School Librarians (2010) than from studying for and completing a comprehensive exam. Additionally, we anticipated that graduates might then be able to use that portfolio in the job search and interview process.

School librarianship students first completed professional portfolios in fall 2014 and, based on anecdotal evidence and informal feedback in subsequent semesters, we felt that our students not only liked the change but also considered the portfolio to be a more useful product. However, we needed empirical evidence to document assurance of quality, and, in fact, Burke and Snead (2013) had issued the call for programs to “collect data from students and graduates about whether they found their portfolio experience to be a helpful tool in professional acculturation” (p. 38). The purpose of our study then was to determine if the professional portfolio was a more effective culminating experience for school librarianship program graduates than a comprehensive exam. The main research question was: For school library program graduates, is the professional portfolio a more effective culminating experience than the comprehensive exam?

## Literature Review

### ***Background on Usage of Portfolios as End-of-Program Assessments***

Exploring the early stages of portfolio adoption in LIS graduate education, Latrobe and Lester reported the 1997 implementation of the portfolio as the end-of-program assessment for the school library media certification program in their Master of Library and Information Science at the University of Oklahoma; by 2000 they noted that one-third of the students in the program were developing professional portfolios. In a 2002 review of ALA-accredited MLS programs, Brown and Boltz found that at least 14 utilized a portfolio assessment, most of which were in the area of school library media. In 2013 Burke and Snead surveyed faculty in ALA-accredited library and information science programs and reported that one-third of the respondents named portfolio as their top choice for an end-of-program assessment. According to the 2017 ALISE Statistical Report, of the 61 schools reporting, 45 listed portfolios as a degree requirement for graduation. There is no doubt, then, that portfolio use as an end-of-program assessment has increased over the last two decades. What, however, are the disadvantages and advantages?

***Disadvantages of Portfolio Use.*** Faculty members express concern that portfolio content can vary widely, that the portfolio process can be very time consuming for both faculty and for students, that the structure can be open to interpretation, and that grading can be too subjective (Burke & Snead, 2013). Addressing ePortfolios, Jones, Downs, and Repman (2012) offer caution in the area of FERPA requirements and student privacy; they also note that free Web tools utilized to create portfolios may become fee-based or disappear altogether.

***Advantages of Portfolio Use.*** Advantages identified seem to strongly outweigh disadvantages for students and for programs who implement portfolios.

***Alignment to current trends in professional practice and teacher education.*** Portfolios are widely used across disciplines to demonstrate competence and mastery, and K-12 education and teacher education are no exceptions (Brown & Boltz, 2002). Professionals are expected to document that they have the required knowledge and skills to work effectively in the field (Brown & Boltz, 2002; Jones et al., 2012; Latrobe & Lester, 2000).

***Student-directed/responsibility/choice.*** Use of portfolios as end-of-program assessments gives students the choice and the responsibility to identify and highlight artifacts that best demonstrate their competence (Brown & Boltz, 2002; Latrobe & Lester, 2000). It requires them to discriminate in their selection of artifacts (Burke & Snead, 2013; Dewan, 2010) and puts them in charge of their own learning.

***Opportunity to reflect, write, self-evaluate.*** One of the tremendous benefits of portfolio creation is the opportunity to reflect over assignments, to self-evaluate, and to identify strengths and areas in need of improvement. Critical analysis and reflective writing enhance the learning experience (Brown & Boltz, 2002; Burke & Snead, 2013; Dewan, 2010; Jones et al., 2012; Latrobe & Lester, 2000; Rathbun-Grubb, 2016).

***Opportunity to develop self-assessment skills.*** As students work through the process of creating the portfolio, they enhance their self-assessment skills. They have the opportunity to acknowledge their self-efficacy and to develop a mindset and commitment for continued professional growth (Brown & Boltz, 2002; Latrobe & Lester, 2000).

***Develop technology proficiency.*** Creation of digital portfolios allows students to further develop and enhance their technology skills while the digital portfolio itself demonstrates technology proficiency to future employers (Dewan, 2010; Jones et al., 2012).

**Standards mastery and demonstration of competence.** Through included artifacts and written reflections, students demonstrate their mastery of standards, their competence, and their readiness for professional practice in the field (Brown & Boltz, 2002; Burke & Snead, 2013; Jones et al., 2012; Latrobe & Lester, 2000).

**Use for job search.** Students completing the portfolio have a product which can then be shared with potential employers. While a resume lists skills and accomplishments, a portfolio includes the actual evidence (Brown & Boltz, 2002; Burke & Snead, 2013; Dewan, 2010; Rathbun-Grubb, 2016).

**Future use.** Depending on the format of the portfolio, the potential exists for its continued use as a vehicle to document professional growth on the job and throughout a career (Dewan, 2010; Keller, 2013).

**Standards for accreditation.** If the portfolio is structured around standards for accreditation, it can provide valuable evidence for the accreditation process. Programs can utilize the data gathered as evidence of student mastery of the standards (Brown & Boltz, 2002; Burke & Snead, 2013; Jones et al., 2012; Latrobe & Lester, 2000).

In summary, professional portfolios are currently used as end-of-program assessments in many school librarian preparation programs. While some negatives exist, benefits for students include reflection and continued professional growth during the process and potential usefulness for job seeking. Benefits for programs include the availability of assessment data that can be used for accreditation purposes.

## Methods

This study was a mixed methods explanatory sequential (QUAN→qual) design. Quantitative data were gathered through questionnaires sent to program completers. Qualitative data gathered through open-ended items on the questionnaire and from focus groups of portfolio completers provided additional evidence to support the findings.

### *The Professional Portfolio*

This study was conducted at a small public university in a mid-Atlantic state where the school librarianship program is the largest graduate program at the university. In fall 2014, the program underwent a complete program revision and the decision was made to transition from the comprehensive exam as an exit requirement for all master's degree students to the professional portfolio as an exit requirement for all program completers. To complete the professional portfolio at this institution, students enroll in a one-credit course, team-taught by two faculty members. Across the semester they work to construct their portfolio using the website creation tool of their choice. The portfolio is structured around the five ALA/AASL Standards for the Initial Preparation of School Librarians: Teaching for Learning, Literacy and Reading, Information and Knowledge, Advocacy and Leadership, Program Management and Administration. These standards are listed on all course syllabi; course assignments are coded to the standards; and each syllabus includes a statement reminding students of the professional portfolio requirement for program completion. Throughout the semester in which students enroll in the professional portfolio course faculty members scaffold the portfolio creation. As students complete work for each standard, they submit their website and accompanying written reflections, and faculty members provide feedback. At the end of the semester, students come to campus for an oral presentation and defense of their work.

### *Participants and Instruments*

Although a review of the literature supported the change to the professional portfolio based on the increased use of portfolios at school librarianship preparation programs (Burke & Snead, 2013;

ALISE, 2017), the faculty in this school librarianship program desired evidence of the impact of this portfolio activity compared to the earlier comprehensive exam activity.

Participants for this study were from the following groups of students in the graduate program at this institution:

- Comprehensive exam: master's degree students in the school library media program who completed the comprehensive exam from fall 2011 through summer 2016 (N=66; n=25)
- Portfolio: endorsement and master's degree students in the school librarianship program who completed the program from spring 2015 through summer 2016 (N=67; n=39)
- Focus group: endorsement and master's degree students who completed the program and the professional portfolio in fall 2016 (n=14)

Once items for the questionnaires were created, pilot groups were chosen from earlier completers of the two assessments with two pilot participants responding to each questionnaire. Upon review of the pilot groups' responses and suggestions, minor revisions were made to some items for clarification before the questionnaires were sent through email to study participants.

The first data collection instruments were questionnaires sent to students in the two groups (comprehensive exam and professional portfolio). Items in the questionnaires were organized around four themes: 1) how the individual components of the exam or portfolio helped students prepare for job searching and interviewing, 2) how the components of the experience helped the students prepare for their future careers as school librarians, 3) the process of preparing for and completing the culminating experience, and 4) the impact of the culminating experience overall. The comprehensive exam questionnaire included 37 questions, of which 27 were content questions. The portfolio questionnaire included 44 questions because the process of completing the portfolio included more steps than preparing for and taking the comprehensive exam. Most items on the questionnaires were four-item Likert-type items, but there were also open-ended questions to provide opportunities for participants to expand on their responses.

Since questionnaire data were gathered during the fall 2016 semester, those completing the process during this semester were not given the questionnaire. Instead, they were asked to participate in a focus group upon successful completion and presentation of their portfolios. Four focus groups were conducted, one after each group of portfolio presentations. The focus group questions were organized into three topics: the process, the portfolio as a learning experience, and the impact of the portfolio experience. The focus groups sessions were recorded and transcribed, then coded for further evaluation and to provide evidence to support the quantitative data.

## Findings

### ***Job Searching/Interviewing Results***

The results for items related to job searching and interviewing for each culminating experience are listed in Table 1. Since the components that go into completing the comprehensive exam and the portfolio are not the same, we were not able to make a comparison. Instead we analyzed each component using descriptive statistics.

**Table 1. Job Searching and Interviewing Item Results**

<b><u>Comprehensive Exam</u></b>		
<b>Question</b>	<b>n</b>	<b>Mean</b>
Summary Paper	24	2.75
Studying	24	2.666
Completing Exam	23	2.478
<b><u>Professional Portfolio</u></b>		
<b>Question</b>	<b>n</b>	<b>Mean</b>
Self-Reflection	37	3.621
Creation	37	3.540
Choosing Artifacts	37	3.513
Explaining Standard	37	3.540
Presentation	37	3.837

As we analyzed the mean scores, it was apparent that the mean scores were higher for the portfolio experience across all components.

The comprehensive exam and the portfolio both had components that required students to give a self-rating on each of the ALA/AASL Standards for the Initial Preparation of School Librarians. Since the self-reflection component for the portfolio completers was the same activity as the summary paper for the comprehensive exam completers, we compared the scores for these elements using an independent samples *t*-test. When analyzing results for how this activity impacted their preparation for job searching and interviewing, there was a significant difference in scores for comprehensive exam completers ( $M=2.73$ ) and portfolio completers ( $M=3.61$ );  $t(46)=2.01$ ,  $p<.05$ .

In the related open-ended responses, portfolio participants said,

*"I liked being able show and reference my portfolio. Showing off a thesis isn't quite as impressive!"*

*"It gave me "practice presenting in front of a panel."*

*"The portfolio allowed me to show many different facets of myself without 'talking' too much!"* and

*"After formally presenting my portfolio, I felt well prepared for a job interview. I actually enjoyed the interview and left with no regrets."*

Comprehensive exam completers commented,

*"As I was interviewing, it was helpful that I had already been reflective/purposeful about my vision of librarianship."*

*"The ability to put everything together and think of the library media specialist I wanted to become, gave me a clear vision that I was able to share in my interviews."* and

*"I prepared more for this exam than for any other in my lifetime. Knowing that I mastered the program objectives gave me confidence to comfortably discuss library issues without having real job experience."*

Focus group participants enthusiastically talked about how they used their portfolios for job searching and interviewing. One participant said,

*Having this little piece and being able to have this in your hand and show your principal that you're interviewing with and say, 'Hey, I do know 21st century skills. I do know technology. Look at these tools and gadgets that I have.'*

The participants talked about using their portfolios as further information to provide to interviewers, saying, *"You have this great final product that you can sell yourself with if you're in the pursuit of that job."*

## Future Career Results

The next group of questions was related to how the culminating experience prepared the students for their future careers. Once again, it was clear, as Table 2 indicates, that the mean scores were higher for the portfolio than the comprehensive exam, although direct comparisons could not be made since the items were not identical between the two groups, as with the job searching and interviewing items.

**Table 2. Future Career Results**

Comprehensive Exam		
Question	n	Mean
Summary Paper	24	2.791
Studying	24	2.583
Completing Exam	24	2.416
Professional Portfolio		
Question	n	Mean
Self-Reflection	38	3.736
Creation	38	3.684
Choosing Artifacts	38	3.605
Explaining Standard	38	3.5
Presentation	38	3.684

When we compared the summary paper and the self-reflection, there was again a statistically significant difference between the comprehensive exam completers ( $M=2.82$ ) and portfolio completers ( $M=3.72$ );  $t(31)=2.03$ ,  $p<.05$ .

In the open-ended responses, portfolio participants talked about the importance of connecting with peers to share ideas, the experience of giving a professional presentation, learning to create a website and gathering artifacts for a professional portfolio, and sharing professional accomplishments with others. Comprehensive exam participants mentioned applying knowledge from the program in real-world scenarios. However, they also said, *"I felt I couldn't use that knowledge to directly apply to jobs the way a portfolio might have."*

Focus group participants talked about how the portfolio process helped prepare them for their future careers as school librarians. *"You can also see your strengths, too, which standards you're stronger in and where you would need to work in the years coming."*

## Process Results

We asked both groups the same questions related to the process of the culminating experience so we could compare the means using independent samples *t*-tests. We found statistically significant differences across all of the items related to process, as shown in Table 3.

**Table 3. Process Results**

Question	Comprehensive Exam		Portfolio		Comparison
	n	Mean	n	Mean	p-value
Program Reflection	24	3.5	38	3.815	0.026
Growth Reflection	24	3.166	38	3.842	0.000
Knowledge Reflection	24	3.166	38	3.631	0.038
Learning Opportunity	24	1.375	38	1.973	0.000
Effort	24	2.791	38	3.263	0.012

It was interesting to note that both the comprehensive exam and the portfolio participants scored the culminating experience as an additional learning opportunity lower than any of the other items. This suggested that neither group considered additional learning through the process as meaningful as the other items. Both groups felt strongly that the activity allowed them to reflect on their work throughout the program. This was evident in their open-ended responses as well. Portfolio participants said,

*"The process helped me to see more clearly that I was indeed prepared to assume the role of school librarian upon hire."*

*"Having to choose activities and projects that reflected my learning was one piece. Being able to share that with others was another whole level of learning and reflecting."* and

*"I got to gather my actual learning and realize what all I had gained/gathered throughout the whole program. You don't stop and consider that during the process, so having to pull away/step back allowed me to see the true depth of knowledge I gained. That self-reflection is an important part of learning...as I learned in-depth through this program."*

Portfolio focus group participants mentioned the step-by-step, scaffolded process of portfolio creation. *"I thought it was great how it was step by step. I thought the feedback was great."* The comments from comprehensive exam participants were similar. *"It allowed me to review the material and then apply it in a format which was a culmination of that knowledge."*

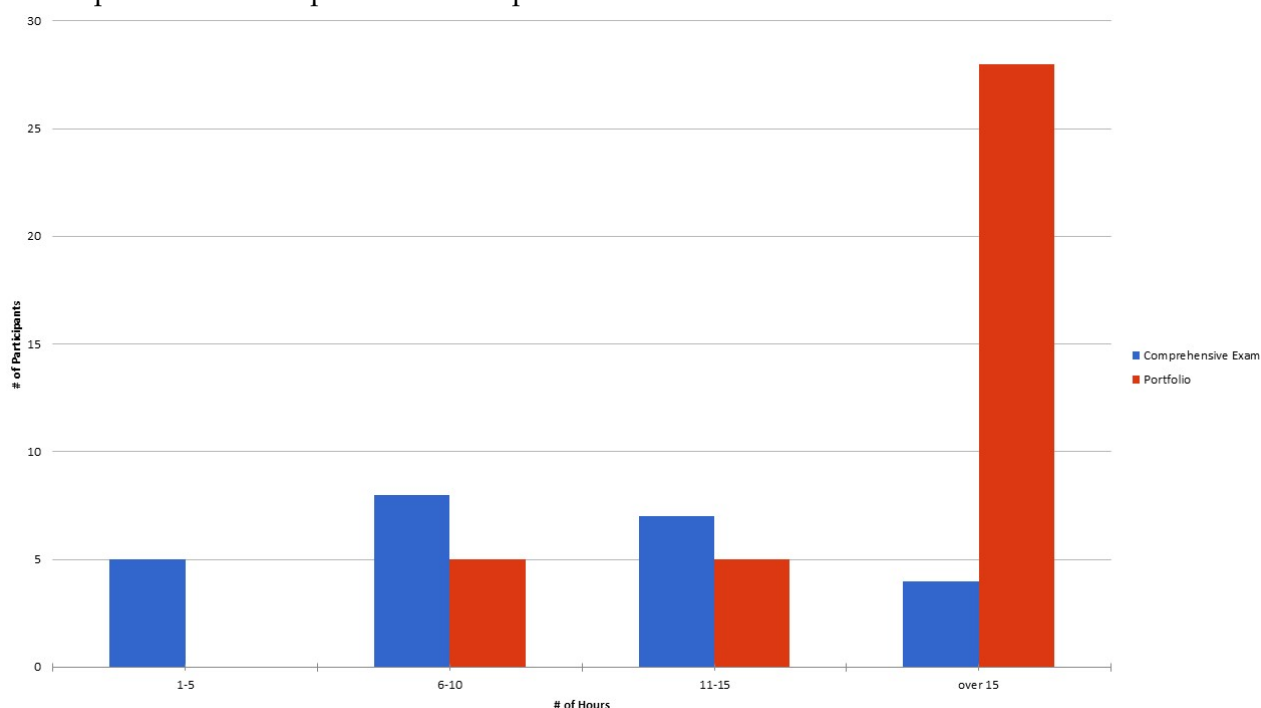
### **Impact Results**

As with the process items, some of the impact items asked the same questions for both groups so we could compare mean scores using independent samples *t*-tests. We found statistically significant differences at the .05 level for items related to usefulness of the culminating experience and beneficial use of time (see Table 4). We only asked about satisfaction with the final product for the portfolio since this activity ended with a product that could be kept by the student, unlike the comprehensive exam.

**Table 4. Impact Results**

Question	Comprehensive Exam		Portfolio		Comparison
	n	Mean	n	Mean	p-value
Usefulness	24	2.125	38	2.945	0.002
Time Beneficial	23	2.869	38	3.605	0.004
Satisfaction	X	X	38	3.631	X

As Table 4 suggests, portfolio participants were pleased with their final products and found them useful in many ways. They mentioned the usefulness of the product and the process of preparing the portfolio. They frequently mentioned the reflective nature of choosing the artifacts from among all of their coursework from the entire program. *"The review and preparation for the portfolio is invaluable because it forced me to sort through all that I had done in every class, therefore allowing me to reflect on almost every item I created during the entire program."* They also appreciated the requirement to self-reflect and highlight their own skills and abilities. *"It would have been very hard to pull a professional looking website together about "me" without the guidance of the portfolio class."* Figure 1 shows the comparison of time spent on each experience.

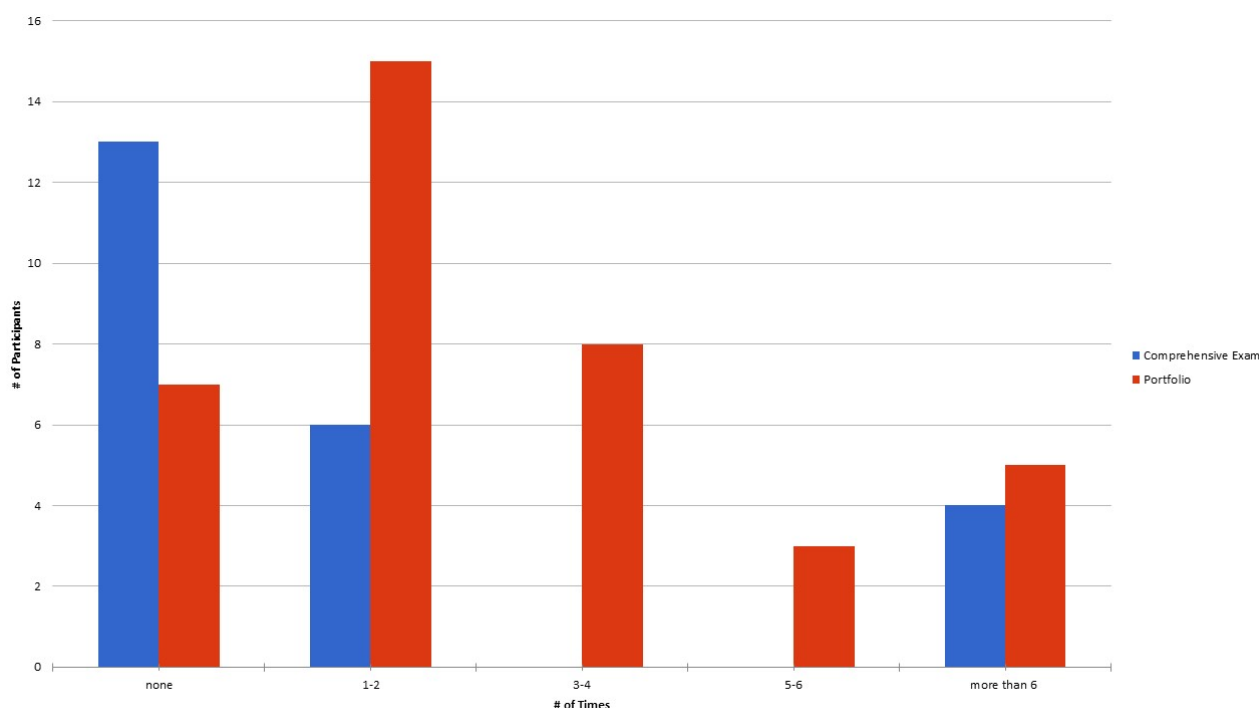
**Figure 1. Autumn Falls Middle School**

When we compared the hours spent preparing for the comprehensive exam (on the graphs in blue) vs. the hours spent creating the portfolio (shown in red), we found a substantial difference. Clearly the portfolio creation process is more time consuming than the comprehensive exam preparation for this group of participants. Twenty-eight out of 38 portfolio respondents indicated they spent over 15 hours preparing, whereas the majority of the comprehensive exam participants indicated spending 15 hours or less in preparation for the exam. In the open-ended questions, one portfolio participant said, *"I now have a tangible piece of evidence to show what I do. I am more than a philosophy statement."* Another portfolio participant summarized the worthiness of the time to complete the portfolio like this:



*This process provided me with a lot of confidence in myself as a teacher and a school librarian candidate. This process was time consuming and not easy. When I look back and see all that I have been able to accomplish it really is an amazing feeling. It provides me with HOPE for the future...that I will have an opportunity to 'graduate' from the classroom and be where I really want to be...the school library!*

Likewise, more portfolio completers indicated that they used their portfolio after completion and used it more times than those who completed the comprehensive exam as shown in Figure 2.



**Figure 2. Canyon Heights Middle School**

It was interesting to read their responses related to how they have used the experience since completing the program. Some comprehensive exam respondents reported examples of how they use the experience in their current practice:

*"I have performed the activities described in the comprehensive exam in my career as a school librarian. I have also explained the experience to my students to help them understand possible testing scenarios they may encounter while in college and how it relates to the seriousness and honesty they should display while taking End of Course, SOL's, or other testing activities."*

One portfolio respondent talked about the transition from classroom teacher to librarian:

*"I think that it helped me to see my transformation from classroom teacher to librarian. This was not an easy transition for me. I really loved being a classroom teacher. The portfolio helped me to see what I was preparing for in the next step of my career."*

It is worth noting that many of the portfolio respondents had completed the program within the last year, so they may not have had time to use their portfolio at the point of data collection for this study.

### **Additional Findings**

We read and coded the responses to the open-ended questionnaire items related to the challenges and benefits of each culminating experience and found themes that emerged. Challenges shared by comprehensive exam completers included the fact that the comprehensive exam was not truly

comprehensive, that it could not adequately measure everything they had learned in the program; the stress associated with taking a comprehensive exam; the expense of traveling to campus; time spent in preparation for the exam, in traveling to campus, and in taking the test; and the lack of feedback on comprehensive exam responses. Challenges noted by portfolio completers included stress and anxiety over the process; time spent in preparing and presenting; unclear expectations regarding the format of the portfolio and the presentation; and a lack of feedback after the presentation. Focus group participants also commented about needing to take a day off of work to attend the portfolio presentation and the challenge of deciding which artifacts to use for each standard. The self-reflection piece of the process was also a topic of discussion among focus group participants, especially among those who are not yet working in school libraries.

Comprehensive exam completers noted benefits that included the opportunity to reflect, synthesize, and solidify understanding across courses as they reviewed and studied and the bonding that occurred as students formed study groups. Portfolio completers identified benefits that included the opportunity to reflect across assignments and to identify strengths as well as areas in which growth was still needed; how the process of creating the portfolio prepared them for job interviews; the ability to use the portfolio during job interviews; the opportunity to organize and showcase their learning from the entire program; and the opportunity to learn and apply the new skills of creating a website for the professional portfolio. One focus group participant talked about sharing her portfolio with her principal. "She is the biggest supporter of me making changes in the library and I wanted her to see that I am qualified to do so and that I do have knowledge." Another participant who moved from a classroom teaching position to a library position in the same school talked about sharing the portfolio with her principal. "I found showing it to my principal...as a way of thanking her, too. Thank you for waiting. Thank you for believing...that I could do this. Thank you."

## Conclusion

When responses from the two groups of study participants, those completing the comprehensive exam and those completing the portfolio, were compared across all four areas—job searching and interviewing, future career, process, and impact—a consistent pattern emerged. Students completing the portfolio consistently indicated that they considered it a more effective culminating experience than did those students who completed the comprehensive exam. Two quotes seemed to sum up our findings very well:

*I know plenty of straight A and knocked out of the park people who took the exam and were not effective teachers. I know people who didn't do great on the test and have awards as librarians under their belts. I'm not sure if the comprehensive exam proves to really be comprehensive.*

and

*Reviewing and preparing for the portfolio was very beneficial to me for self-reflection and growth. It was both satisfying and rewarding to see what all I had accomplished in the program and how far I'd come since I'd begun the program. The process helped me to see more clearly that I was indeed prepared to assume the role of school librarian upon hire.*

As one focus group participant said, "This is everything that I've done, that I can stand up and be proud of."

## Implications

To review our research question: For school library program graduates, is the professional portfolio a more effective culminating experience than the comprehensive exam?

Our findings indicate that although considerably more time-consuming for the students, the professional portfolio is a more effective culminating experience than the comprehensive exam. Based on this research, the school librarianship program at this university will continue to offer the professional portfolio as the culminating activity for the program.

We seek feedback and suggestions from our students to improve the portfolio process. However, their suggestions are considered within the learning goals of the assignment. For example, focus group participants suggested working on the portfolio from the beginning of the program. We do not plan to make this change because part of the learning process for the participants of this study was the process of reviewing old assignments. Participants also said this artifact review process helped them prepare for interviews and their future careers.

We continue to make changes based on this research and other related research in the field. For example, after reading the FERPA concerns raised by Jones, Downs, and Repman (2012) we gave the option to use a pseudonym for the portfolio assignment instead of sharing personal contact information. Also, in the question and answer portion of the portfolio presentations now we intentionally ask questions about how the portfolio could be used once the completers are in jobs as school librarians. Our purpose is to spark conversation among portfolio completers that will encourage them to think about ways to keep up their portfolios after the job search and into their careers as school librarians. As Keller (2016) notes, portfolios can be used to document performance effectiveness and to foster reflection. Additional follow-up in this area may be helpful to remind completers to maintain and add to their professional portfolio once they are in the field. An area for future study might be to identify methods that will aid graduates in maintaining up-to-date professional portfolios and to use them for personal reflection and professional growth.

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## Author Notes

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