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# Learning Commons Reference Collections in ARL Libraries

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**Title: Learning Commons Reference Collections in ARL Libraries**

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**Abstract**

**Purpose** – This paper explores the changing role of the reference collection in learning commons at ARL member libraries.

**Design/Methodology/Approach** – A 15 question survey was sent to managers at academic research libraries with membership in the Association of Research Libraries (ARL). Respondents were asked about their learning commons and reference collections. To increase the sample size, the researchers conducted phone interviews using the same questions with a random sample of individuals from the same target population.

**Findings** – Most respondents had or were planning learning commons for their libraries. The role of reference collections varied. Of those who had retained a print reference collection, the majority believed them to be little-used. The researchers believe this may signal an end to a formerly cherished idea: the primacy of the reference collection within a library learning space.

**Research limitations/implications** – This study involved a random sample of public service managers at North American ARL academic libraries. While the sample is believed to be representative of the broader population, findings may not be generalizable to all ARL libraries or to other academic libraries.

**Originality/value** – Many papers have been written about information or learning commons spaces and their distinctive elements. Others have discussed the changing role of reference collections. This paper is unique in examining the changing role of the reference collection within learning commons spaces.

**Keywords:** Academic libraries, learning commons, information commons, reference collections, Association of Research Libraries, space planning.

**Article Classification** - Research paper

## Introduction

Many academic libraries have developed or partnered in the development of learning commons over the last two decades. Although the nature of these environments may vary, learning commons are characterized here as adaptable spaces in which services, programming, and specialized resources are brought together to support and enact specific learning and research activities.

The development of learning commons spaces has resulted in significant changes in traditional library collections, including decisions to weed or relocate physical collections, to transition from print to electronic collections, and to develop collections to support new learning services, programs, and collaborations (Brown *et al.*, 2014; Detmering and Sproles, 2012).

This study focuses on the relationship between a specific collection—the reference collection—and its role in the learning commons environment. The researchers surveyed staff at academic libraries with membership in the Association of Research Libraries (ARL) on their local practices concerning the design of learning commons and the role of reference collections within these environments. Information gleaned from these participants is analyzed in order to inform and improve practice.

## Literature Review

### *The Information Commons and the Learning Commons: Emergence and Evolution of an Idea*

The concept of the information commons and, more recently, the learning commons has emerged and evolved in the library literature for nearly two decades. Writing in 1999, Donald Beagle described the information commons as “a new type of physical facility specifically designed to organize workspace and service delivery around the integrated digital

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environment...” (p. 82). Such environments were meant to provide a blended and convenient means for students and others to “work on their projects from start to finish in one area” and—particularly in the early stages—commonly involved marshalling the resources of libraries and computing enterprises (Haas and Robertson, 2004, p. 11).

But the information commons concept was not limited to the pairing of libraries and computing. Bailey and Tierney offered the idea of the information commons as a “model for information service delivery, providing students integrated access to electronic information resources, multimedia, print resources, and services” (2008, p. 1). Elizabeth Milewicz emphasized the role of cooperation in realizing the potential of the information commons: “though they may differ in the details, information commons typically cohere around the notion that scholarly work is best supported through environments that encourage and are maintained through collaboration, that provide convenient access to the tools, information, and services for accomplishing that work, and that cultivate meaningful interactions among the academic community” (2009, p.7). Other authors stressed that social learning and interaction were just as important as tools and resources:

this cluster of network access points and associated IT tools can inhabit a physical space that both accommodates and facilitates mobile learners, while providing a stimulating physical environment that harbors a rich and varied array of resources for student exploration, and that incorporates the informatics range of the Internet into social interaction and group process learning (Beagle, 2006, p. 9)

The social learning environment of the commons has received similar emphasis from Sinclair, who called for an inspirational setting that would promote cross-disciplinary exchange of ideas and productivity: “where real work can be done and real learning can take place” (2007, p. 8).

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Authors have struggled to articulate the difference between an information commons and a learning commons. Beagle suggested that they be understood as a continuum of the same idea: the information commons is a service environment organized in support of learning whereas a learning commons is the product of collaboration that aligns the resources of that environment with broader learning initiatives or outcomes as determined “through a cooperative process” by multiple campus groups and units (2006, p. xviii). Bennett has argued that collaboration among academic support units such as libraries, computing centers, tutoring, and faculty development centers may be beneficial, but that it is only through the involvement of academic departments that the commons can transition from a role of supporting to one of enacting the learning mission of the university: “properly understood, librarians and academic computing staff cannot alone create a learning commons, as they serve but do not define institutional mission. Other academic units do that and must join librarians and technologists in creating a learning commons” (2008, p. 183).

Collaboration at this scale has proven difficult to achieve. There are many examples of commons or other new learning spaces that have involved collaboration with campus or institutional partners including writing centers, academic institutes, and teaching and learning development centers (Brown *et al.*, 2014; Beatty, 2010; Barratt and White, 2010; Dallis and Walters, 2006; Stoffle and Cullier, 2010), but fewer of these spaces appear to include active partnerships with academic departments and colleges.

What characterizes the contemporary commons environment is diversity. Academic institutions use different terminology—information commons, learning commons, knowledge commons, learning studio, collaboratory—to name these spaces. They have been developed by

different partners for the purpose of supporting and enacting learning and research activities.

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While the names and partners may vary, the durability of the commons concept is significant. For roughly 20 years academic research libraries have developed or partnered in the development of such spaces ranging from early examples, such as the Information Arcade at the University of Iowa (1992), the Leavey Library Commons at the University of Southern California (1994), and the Valley Library Information Commons at Oregon State University (1999), to the more contemporary Research Commons at the University of Washington (2010), the Knowledge Commons at Pennsylvania State University (2012), and Hunt Library at North Carolina State University (2013).

*The Role of the Reference Collection in the Learning Commons*

As learning commons environments have continued to evolve so too has the nature of the resources and support found in these environments. Early descriptions of the information commons focused on the provision of resources in multiple formats: “a student-focused academic center for learning and intellectual discovery and exploration outside the classroom with information resources in all formats...” (Lynch, 2004, n.p.). Initially, the information commons sought to expand upon the idea of bringing the library’s collections to the service of teaching, learning and research. Many early information commons prominently displayed one of the most critical collections for information consultation, the reference collection, to illustrate how print and digital resources might be co-located to support discovery. The reference collection, classically defined as a collection of books “not meant to be read cover to cover, such as dictionaries, handbooks, and encyclopedias, shelved together by call number in a special section of the library” (Reitz, 2004) would serve as a “core component in reference services” and also as a “major resource for the instruction program” (Cordell, 2014, p. 53).

Indeed, Haas and Robertson's 2004 SPEC Kit on Information Commons found that the overwhelming majority (86%) of ARL libraries included sources such as general encyclopedias, dictionaries, and foreign language dictionaries in their commons. More than half (57%) included print indexes and subject bibliographies. Print reference collections were incorporated into the commons environments found at 12 of the 14 large academic libraries profiled in Bailey and Tierney's 2008 book, *Transforming Library Services Through Information Commons*, including the University of Arizona; the University of Massachusetts Amherst; the University of North Carolina at Charlotte; the University of Victoria; and the University of Calgary.

More recent evidence, though, suggests a less prominent role for traditional reference collections in the learning commons environment, a shift that may correspond to changes in reference service delivery as well as collection development practices. Numerous articles (Aguilar *et al.*, 2011; Arndt, 2009; Sinclair, 2008; Fitzpatrick *et al.*, 2008; McClure and Bravender, 2013; Vyhnanek and Zlatos, 2011; Zabel *et al.*, 2010) detail the shifts in the provision of reference services over the past few decades, noting the widespread consolidation of service desks in academic libraries, a decreased focus on the provision of reference services from a discrete service point within the library, and an increased focus on outreach roles for reference librarians. Some found that "reference service is not only possible, but can thrive without the desk" (Arndt, 2010, p. 79) and that "reference service is most effective and efficient when the librarian has a presence at the point of need. This point of need, though, and the most effective means for responding to it, may vary by a population's research need, and material type" (Fitzpatrick *et al.*, 2008, p. 238).

Equally critical are the shifts in collection development practices towards online access, a change with pronounced implications for reference collection development and management.

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Ford, O'Hara, and Whilko wondered "whether, as print resources change over to electronic format, the notion of a reference collection was still necessary" (2009, p. 253). King (2012) found that academic ARL libraries increasingly emphasized online information and that "the concept of a reference collection is an increasingly problematic concept that is increasingly difficult to mesh with the realities of collecting responsibilities and user needs" (p. 152).

If a print reference collection is still necessary, the literature suggests the necessity of paring it down. Francis, while noting the esteem with which librarians hold reference collections, also maintains that "a bloated reference collection focused on the needs of patrons from 20 years ago offers little service to the current patrons" (2012, p. 220). Detmering and Sproles emphasize a similar approach to weeding their institution's reference collection: "with usage data showing limited use of print reference books and anecdotal evidence from...librarians indicating that they rarely employ such books when providing research assistance, it became clear that the library no longer needed a huge print reference collection" (2012, p. 19).

It is not surprising that the definition of a reference collection has shifted, as has the place for this type of collection in the contemporary learning commons environment. Some have suggested that the reference collection should be continually repurposed to support changing needs and audiences: "when undergraduate students were the primary user group, test preparation materials were made available. When graduate students were the primary user group, grant funding resources were given special space" (Hussong-Christian *et al.*, 2010, p. 283). Other evidence suggests a diminished role for print collections of any sort within the commons environment. The 2014 ARL SPEC Kit *Next-Gen Learning Spaces* found that, among ARL libraries responding to their survey: "there were few mentions of print collections [as a component of new learning spaces] other than removing them from the library" (Brown *et al.*,



2014, p. 15). In some cases, the purpose of the print reference collection has become symbolic: “It should be noted that in our assessment with students, they do not want us to remove all of the books; they still like the feel of being surrounded by books and they note that it has the psychological effect of helping them focus on their work” (quoted in Brown *et al.*, 2014, p. 35).

The researchers were curious about these changing ideas of the print and electronic reference collection and wanted to learn more about how large academic research libraries defined and made use of reference collections in their local learning commons. Are reference titles a critical component of the contemporary learning commons? What role does format play? How does the overall design of a commons—and its potential constraints—influence the interplay between the collections, services, and space?

### **Methodology - online survey and phone interviews**

The initial study consisted of an online survey targeting staff involved with learning commons management at academic libraries with membership in the Association of Research Libraries (ARL). ARL is a not-for-profit membership organization of 124 research libraries at comprehensive research institutions in North America that share similar research missions, aspirations, and achievements (Association of Research Libraries, 2013).

Academic ARL members were chosen due to their similarity of characteristics, allowing for comparison of practices among members of a relatively like group. ARL espouses the responsibility of research libraries to "anticipate and prepare for the information needs of present and future users" (Association of Research Libraries, n.d.), providing the researchers with the means of exploring the following research questions: What role do ARL member libraries see for a reference collection within the learning commons environment? If it remains a critical feature

of the environment, how is it developed and evaluated? Has the concept of the reference

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collection changed in response to the specific emphasis of the learning commons environment it supports?

The researchers developed an online survey consisting of 15 questions designed to provide information about the role of the reference collection in an academic library with a learning commons. Qualtrics, a software package for survey development and analysis, was used to create and administer the survey. Questions were piloted with subject librarians knowledgeable in the areas of collection development and public services. The protocol underwent review by the Office of the Institutional Review Board, which determined it was exempt from review.

Study participants were identified using the ARL membership directory, excluding the non-academic members since the researchers wished to examine academic library settings. For each of the resulting institutions, the researchers used that library's organization chart and/or staff directory to identify individuals associated with learning commons management at that library.

After developing the list of contacts, the researchers emailed an invitation to participate in the proposed study. The invitation included information on the study topic, contact information for the researchers, and a link to the online survey. Participants were informed that their responses would be anonymous and that no responses would be linked to an individual or an institution. Those who did not believe themselves to be an appropriate contact were asked to redirect the survey to a more appropriate colleague.

The online survey directed participants to an introduction that reiterated some of the information from the email invitation and instructed them to continue through the list of survey questions. The survey used skip logic to distinguish between participants who did and who did

not have learning commons, as well as those who did and did not have reference collections in those spaces. An email reminder was sent 12 days after the initial email invitation.

The online survey yielded 33 responses. Responses to individual questions varied. In order to improve the response rate and the generalizability of the results, the researchers decided to use a complementary method of phone interviews, seeking answers to the same questions asked in the survey.

The researchers used an online randomizer, Random.org, to identify a sample of institutions from the target population for phone interviews. For each randomly-selected institution, the researchers emailed the staff person previously identified as being connected to learning commons management at the institution, referenced the earlier online survey and its goal, and asked if those who had not previously responded to the online survey would be willing to participate in a 15-20 minute phone interview. This step was necessary to avoid duplicate responses because the online survey was conducted anonymously and the researchers did not know who had already responded. This solicitation resulted in 22 responses and 21 interviews. Some duplicate contacts were discovered during the interviews. The researchers excluded those interview responses from the overall data set so the institutions would only be represented once. The resulting set of phone interview responses totaled 19.

When survey and phone responses were combined, the initial response rate was 52 (47%). The response rates for each question varied. The phone interviews offered the opportunity to go into greater detail with regards to both the close-ended and open-ended questions. Interviewees not only described what they had done at their institutions, but also provided insight into why they had pursued a particular course. The interviews also enabled

researchers to expand the conversation, clarifying complex concepts and allowing for a richer  
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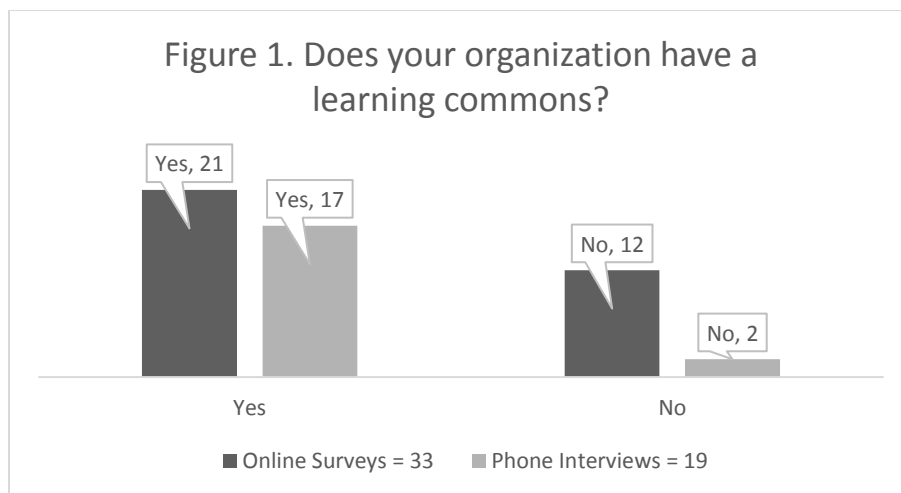
exchange. This proved helpful when comparing and contrasting responses between the interviews and the survey responses.

## Data

The same questions were asked of survey respondents and phone interviewees (see Appendix). In some cases, responses have been disaggregated to highlight different response patterns. In others, they are combined to provide a sense of overall trends.

### *Does your organization have a learning commons?*

Responses to this question from the online survey and the phone interviews are presented in Figure 1. The online survey yielded 33 responses. Of these, 21 (64%) said they had a learning commons and 12 (36%) said they did not. The interviews yielded 19 responses. Of these, 17 (89%) said they had a learning commons and 2 (11%) did not.



Considerably more survey respondents than phone interviewees reported that they did not have a learning commons. These respondents may have underreported because the online survey provided no opportunity to elaborate on the response. Phone interviewees overwhelmingly indicated that they had a learning commons, but they also contextualized their answers,

indicating that they had some elements of a learning commons in place or that they had a space they would characterize as a learning commons, but used another name for it. The uncertainty about the difference between an information commons and a learning commons—and how best to define one’s environment—is seen in the following responses from phone interviewees:

Yes, sort of. We have more of an information commons.

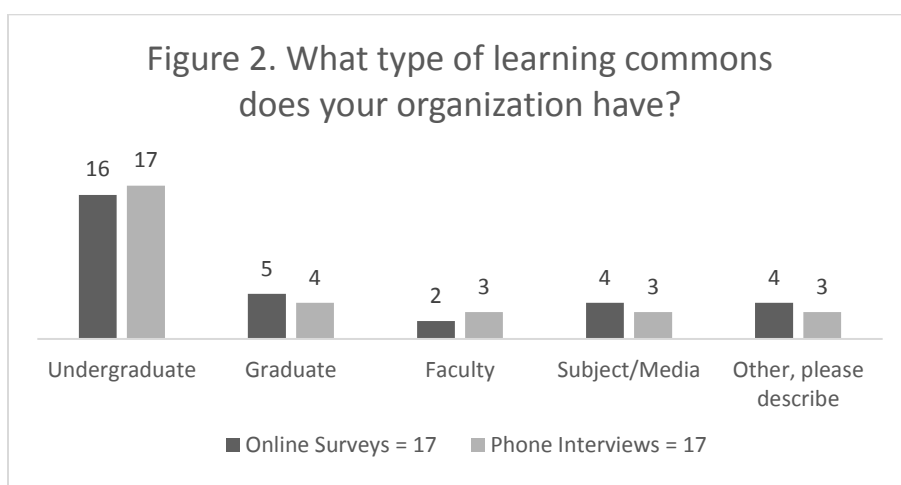
Depends on how you define it, but we are heading there.

Not in a pure sense.

Without an ability to qualify their space (we have some elements of a learning commons), online survey respondents may have determined that the only appropriate response to the question of whether they had a learning commons was No.

***What type(s) of learning commons does your organization have?***

Respondents who indicated that they had a learning commons were next asked to identify the type of commons they had (Figure 2). Because respondents to both the survey and the interviews had the ability to select all that applied, the total number of selections (61) shown in the figure is greater than total number of responses (34) to the question.



Some respondents selected only one option to describe their commons. Of online survey respondents, roughly half (47%) selected only the Undergraduate student commons option. Of phone interview respondents, 7 (37%) selected only the Undergraduate student commons option. No other categories were used as the exclusive answer choice of respondents, which is perhaps unsurprising since many learning commons have been designed with undergraduates in mind.

Other learning commons were defined for broader audiences and purposes. Five online survey respondents (29%) and 11 phone interviewees (58%) selected more than one option to describe their commons, though no clear pattern of user or subject groupings—such as Graduate with Faculty or Graduate with Media—was revealed. In their answers to the Other category, which respondents could select in addition to selecting any combination of the previously mentioned categories of Undergraduate, Graduate, etc., some emphasized that their commons was intended to reach multiple audiences:

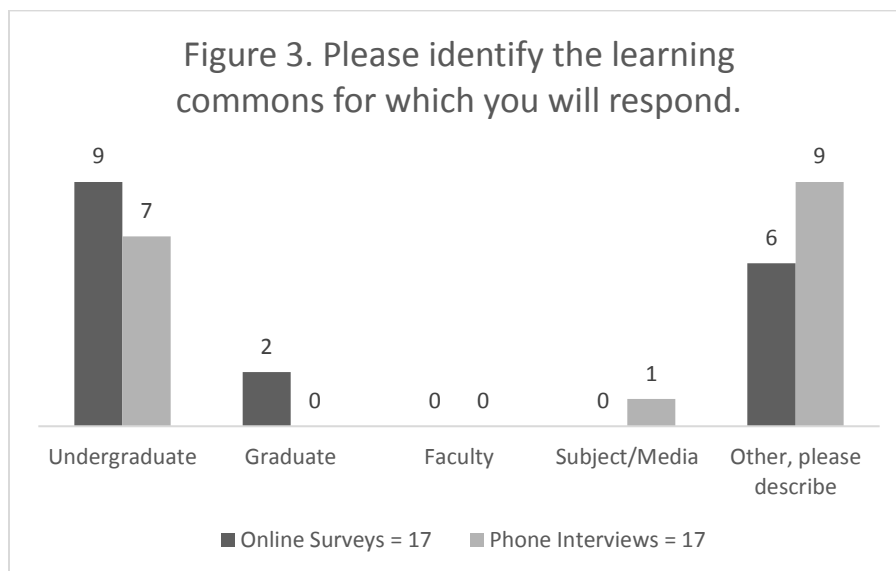
Primarily undergrad, though grads use higher end software and tools.

Undergraduates, graduates, and faculty are the groups to whom we want to appeal.

We don't have a graduate v. undergraduate dynamic here.

***If your organization has more than one learning commons, please identify the one for which you will respond in the remaining survey questions.***

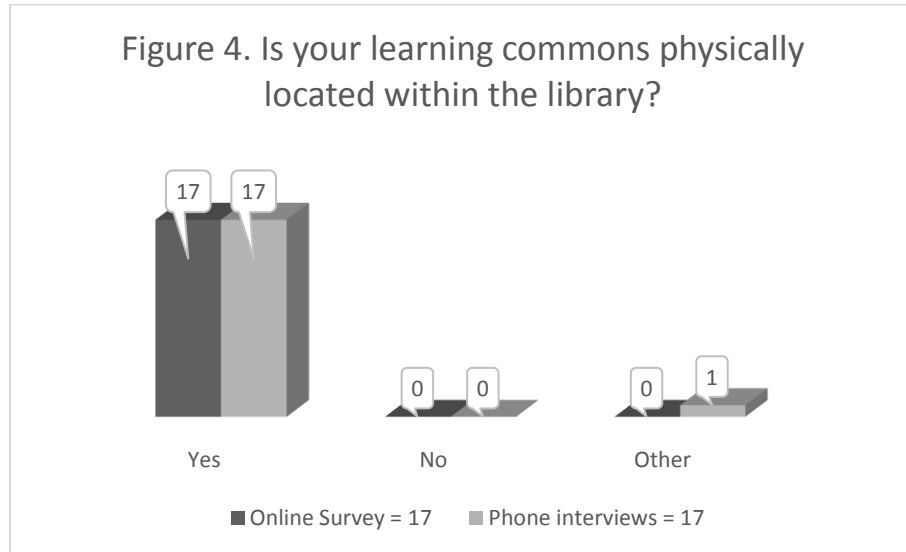
Responses to the previous question may have included more than one learning commons. In the next question, respondents were asked to define the specific commons that they would be describing in the rest of the survey or interview (Figure 3).



Some respondents continued with the same commons identified previously, others provided a discrete selection for remaining responses. Continuing the earlier pattern, most respondents selected either Undergraduate or Other, please describe, when defining their commons. When using Other, respondents frequently noted that they were describing a general commons or a commons with multiple audiences. Two respondents defined the commons they would be describing as a graduate commons, and one defined a subject/media commons.

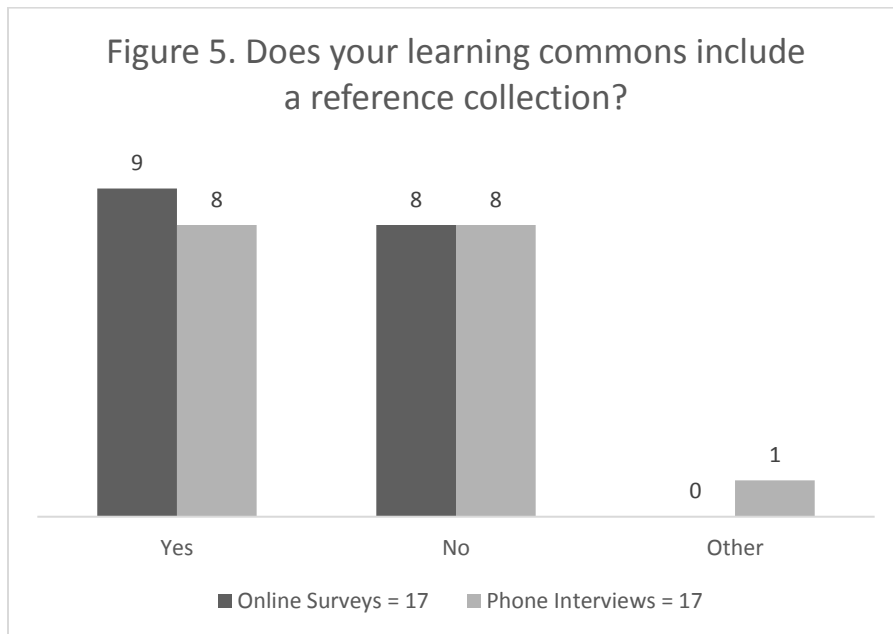
***Is your learning commons physically located within the library?***

As is shown in Figure 4, all respondents to both the online survey and the phone interviews indicated that their learning commons was located in the library. Among the phone respondents, several indicated that they had multiple libraries on their campuses and had learning commons in more than one library. One of the phone interview respondents (shown as Other in Figure 4) replied that the library also staffed a subject learning commons that was housed in an academic college on that campus, which the researchers believed was useful to report.



***Does your learning commons include a reference collection?***

Responses to this question (Figure 5) were nearly identical. For both online survey respondents and phone interviewees, roughly half of the respondents reported having a reference collection in their learning commons. Half did not.





The online survey did not provide an opportunity to elaborate. In retrospect, this would have been beneficial since some phone interviewees provided a more nuanced description of their reference collection when replying to this question:

Well, interesting. The collection is within a part of the learning commons, but it was already there.

Not exactly. We have a collection of 50-60 books related to software installed on commons computers.

We include a collection. It is an element of a comfortable reading experience.

The researchers did not explicitly ask about the connection between the learning commons reference collection and other reference collections. This connection was brought up by two phone interviewees, both of whom indicated that they did not have a reference collection in their learning commons.

Traditional reference collection in the commons? No. The commons is adjacent to our unused reference collection stacks. We have not heavily weeded that area. The space is meant to be fluid.

It [the commons we are developing] no longer has a print reference collection...there is a reference collection in [adjacent library]. People could use digital collections or go to the other library. One of the floors being redesigned will have a number of consultation spaces—data, writing, scholarly communication—and as we have looked at other consulting spaces, we have noticed that these places often have manuals or codebooks so each of these spaces may end up having something like that. We might create something called an “in house” collection since students tell us they would like to have some consultative sources such as foreign language dictionaries.

There may be less of a need for a learning commons reference collection if another reference collection is located nearby. In other cases, respondents indicated that their learning commons reference collection was the sole or primary reference collection.

***What purpose is the reference collection intended to support within your organization’s learning commons?***

***Who uses the reference collection in your learning commons?***

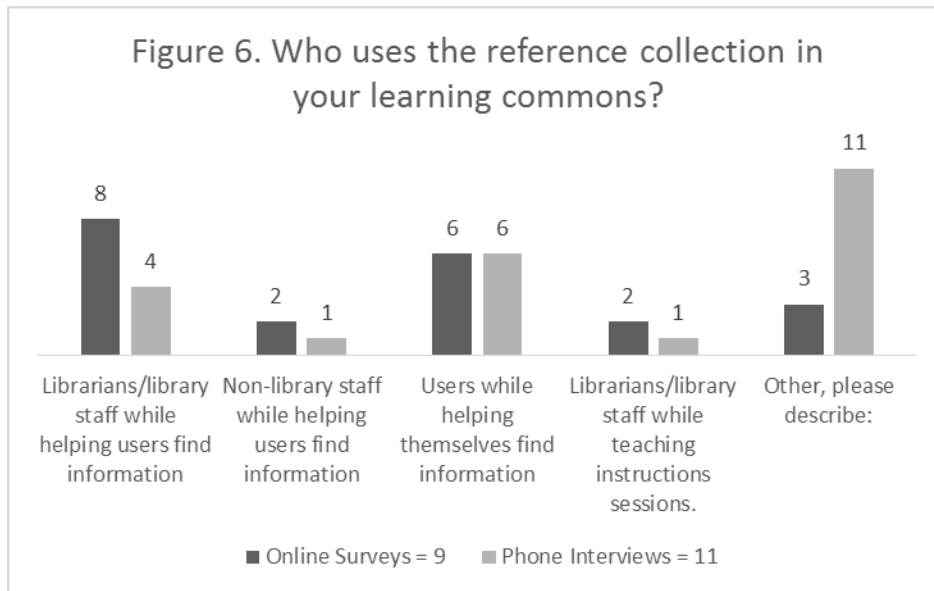
These two questions sought information about how the reference collection supported the learning commons and how it was used. As regards purpose, 15 responses, consisting of 22 comments, were received. Responses were coded to four categories by the researchers. The categories and sample responses are reported in Table I. Complete responses to all survey questions are available from the researchers. Nine of the 15 respondents indicated that their reference collection serves the purpose of supporting service desks; 5 indicated that their reference collection supported users; 6 indicated that they could not discern a clear purpose for their learning commons reference collection; and remaining comments were categorized as Other.

**Table I: What purpose is the reference collection in your learning commons intended to support?**

<b>15 total responses – 22 comments coded to 4 categories</b>	
<b>Purpose Category</b>	<b>Sample responses</b>
Supports Service Desks & Staff [9 comments]	<i>-It is meant to help with questions. I assume librarians use it. The Ask Us desk is where we handle information and reference questions. We primarily provide reference consultations by appointment in an area behind the Ask Us desk.</i>
Supports Users [5 comments]	<i>-Support the information needs of undergrad, grad and faculty.</i>
Purpose is Unclear	<i>-To be honest, at this point the reference collection is mostly decoration. We downsized it several years ago. We kept about three ranges of shelves, but</i>

[6 comments]	<i>the books are rarely used, and we aren't buying anything new. It's mostly decoration for the campus tours so they can see we have books in the library.</i>
Other [2 comments]	<i>-Serves as general reference collection.</i>

The question of use of the reference collection was asked in two ways. Survey respondents and phone interviewees were offered pre-selected categories (Figure 6) and asked to indicate which of those categories applied. In addition, everyone had an option to provide additional information via an open text response or additional comments during the phone interview (Table II). Pre-selected categories included staff-mediated use (research help and teaching), user-initiated use, and other. Because respondents could select all that apply, the total number of selections (44) is greater than the total number of responses (20).



The majority of those responding to the pre-selected categories indicated that staff and users both utilized the learning commons reference collection. When turning attention to the

comments, though, over half (58%) of those providing comments indicated that their learning commons reference collection is used rarely, if at all.

**Table II. Who uses the reference collections in your learning commons?**

<b>Responses to Other, please describe – 19 comments coded to 3 categories</b>	
<b>Use Category</b>	<b>Sample responses</b>
Staff use collection while helping users and/or teaching classes [4 comments]	<i>-I'm not really sure we completely understand usage, but we believe most usage is driven by librarians helping users or as a result of instruction.</i>
Users use collection [4 comments]	<i>-Faculty use reference collection more than students. Students use style guides.</i>
Unclear who uses collection [11 comments]	<i>-I'm not really sure. -I don't have a good sense of use for either format.</i>

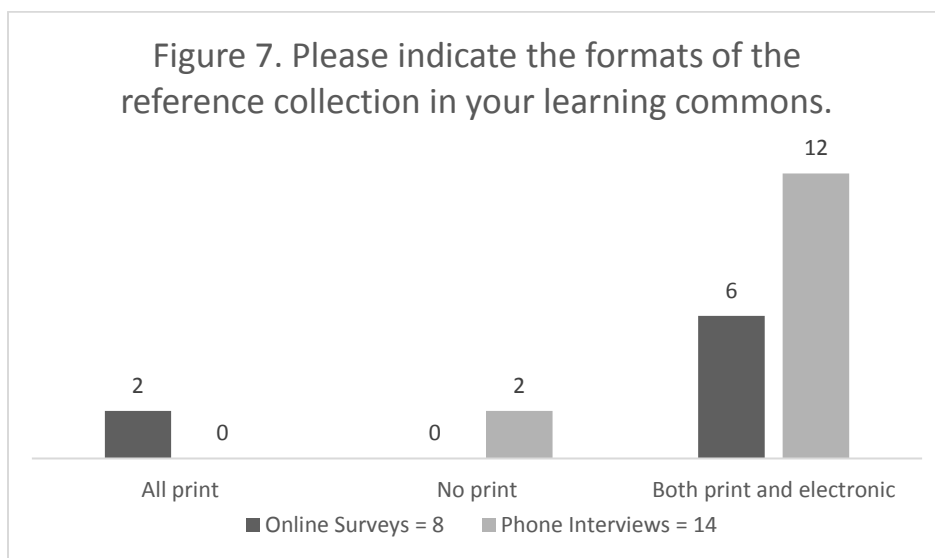
After reviewing both data sets, the researchers wondered if the quantitative data may reflect the uses that the learning commons reference collection *is intended to support* and the comments reflect what is perceived to be *the actual use or non-use* of the collection.

***Please indicate the formats of the reference collection in your learning commons.  
If your learning commons reference collection includes print sources, please estimate the size and space it occupies.***

***What is the reasoning for the formats of the reference collection in your learning commons?***

The next set of questions concerned collection formats and the relationship between the physical collection—if there was a physical collection—and the rest of the commons. As King (2012) and others have noted, the move towards provision of online reference sources has resulted in a situation where the concept of a reference collection is increasingly problematic. Electronic sources are not located in any particular physical space within the library, making it difficult to define them as part of a particular collection. Print sources certainly are tied to physical spaces and can be arranged as a collection.

In describing the composition of their learning commons reference collection, the majority of respondents (82%) indicated that they had a mix of formats (Figure 7). Others indicated that they had all print, which seems unlikely, or no print, which several did say was the case in their responses to other questions.



The researchers were interested in learning about the size of the reference collection as it related to the overall commons space and asked respondents to define this in terms of linear feet (rather than volumes) as well as a percentage of the overall learning commons space. Respondents were asked to provide this information using free text fields (Table III).

**Table III. Please estimate the size of the reference collection**  
combined survey and phone responses (n = 11)

Appx. Linear footage	Appx. Percentage of learning commons space
1	.001
25	0.5
72	5
100	No response
370	10
400	1
1000	15
1100	10

4600	5
5200	20
No response	40
Mean = 1287 linear feet	Mean = 10.6% of learning commons space
Median = 385 linear feet	Median = 7.5% of learning commons space

The results—in terms of space occupied by the reference collection as well as the footprint of the reference collection within the learning commons—varied widely. The researchers were unable to discern any relationship between the size of the collection and the audience(s) and purpose(s) the commons was intended to serve. One possibility is that those collections that serve as the primary reference collection for the library are larger than those that are not.

The challenge of defining the contemporary reference collection is seen in responses to the question concerning the reasoning for the formats in the collection (Table IV). The researchers again developed thematic categories and coded comments to those categories.

**Table IV. What is the reasoning for the formats of the reference collection in your learning commons?**

<b>15 total responses – 18 comments coded to 4 categories</b>	
<b>Reasoning Category</b>	<b>Sample responses</b>
Preference for E format [5 comments]	<i>-We try and buy only electronic, but still have some used print materials.</i>
Price/Cost [3 comments]	<i>-Print and digital formats [are collected] where the best option occurs in a price range that is affordable.</i>
Uniqueness [2 responses]	<i>-What we have kept [in print] are unique, authoritative materials.</i>
Other [8 responses]	<i>-We include print. Part of a comfortable reading experience. People in the health sciences still need to use print. -What's happening is that no one is paying attention to it. We are working on lots of space renovations—focus groups showed the</i>

	<p><i>students like to have books around them, helps inspire them, but they don't use them! They want the feeling of the library.</i></p> <p><i>-As stated in the previous question, our campus tours come through the library building. Since they don't make it to the stacks, the books on our floor are the only books the parents see in the library. This is very important to the dean, so we were not allowed to shrink the footprint further.</i></p>
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Responses indicated that some clearly desire to move towards sources in electronic format. Other comments addressed cost and uniqueness of the content. The researchers were interested to read that several respondents saw the print format as comfortable and supportive of a learning atmosphere—even if those respondents believed that the materials were not used.

***Who develops the reference collection in your learning commons?***

***Do you follow a collection policy or guidelines?***

***How is the reference collection in your learning commons supported financially?***

***How is the reference collection in your learning commons evaluated?***

The next set of questions sought information about collection development practices as they apply to learning commons reference collections, including whether a collection policy or guidelines was used, how the collection was developed and evaluated, and how such a collection was financially supported.

Twenty-one responses to the question about collection development were received. All respondents indicated that collection development for the learning commons reference collection was done by librarians/library staff. Roughly half (48%) indicated that collection development was done by librarians/library staff who worked in the learning commons. Another 52% selected Other, please describe. This category was used to capture responses indicating that collection development was handled by librarians/library staff throughout the library, or that the practice was for learning commons staff and collection development staff to work together. One

respondent noted the need for improved communication: “Not all of the reference librarians whose subject areas are represented in the reference collection work in the Commons. We could use more involvement from staff in the Commons to tell us what is really needed.” The researchers were interested to learn that none of the respondents reported a collection development role for non-library staff. Many learning commons bring together service providers from different academic support areas such as writing centers, teaching development centers, tutoring, etc. It may be the case that any collections maintained by those service providers are housed, developed, and maintained separately.

Table V shows all responses received to the question about a collection policy or guidelines for the reference collection. Of the 21 descriptive responses received, roughly half (11) indicated that the library followed a policy or guidelines. Another 10 indicated that the respondent’s organization did not have a policy or guidelines, or that they were not considered useful.

**Table V. Does your organization follow a collection policy or guidelines in developing the reference collection for your learning commons?**

<b>21 responses – Comments coded to Yes or No</b>	
<b>Category</b>	<b>Sample responses</b>
Yes, we do. [11 responses]	<p><i>-We do have a policy for reference and update it every year. Look at the changing needs in the curriculum and also formats. For example, maps and atlases are not so important at this point to us. We develop in an integrated fashion with the rest of our collection.</i></p> <p><i>-We have had a strong preference for e-reference materials for many years. What we still have in print are chiefly legacy sources.</i></p> <p><i>-We generally develop collections to support the academic curriculum. There are additional materials that support the specific programs available in the Commons and there are a few things that support Frequently Asked Questions in areas such as Graduate School information/Test Preparation/Career resources.</i></p>



<p>No, we don't. [10 responses]</p>	<p><i>-Not at the moment, or if it is, it is too old to be useful. We'd like to have something ready to go after we weed broader collections.</i></p> <p><i>- No real guidelines or policy.</i></p> <p><i>-Our library does not have a specific collection policy for the research commons, but in general the approach is to secure electronic access, including backfiles, to reference sources, and only purchase print when e-access isn't available.</i></p>
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Eighteen individuals responded to the question: How is the reference collection in your learning commons reference collection supported financially? All but one (94%) indicated that their collection was supported through the library collection budget. One respondent indicated that their 50-60 title collection was paid for by library fines and fees. Six respondents commented that they have a separate line in their collections budget for reference materials.

Respondents used a variety of strategies to evaluate their learning commons reference collections (Table VI). In their comments, respondents described typical collection review criteria, including use, currency, etc. Several respondents indicated that their practices had been more haphazard, in some cases due to the fact that collection evaluation activity was focused on other areas of the library's collections. Among those comments coded to the Other category, several appeared to be taking space considerations into play with collection evaluation.

**Table VI. How is the reference collection in your learning commons evaluated?**

<p><b>18 total responses – 30 comments coded to 6 categories</b></p>	
<p><b>Evaluation Category</b></p>	<p><b>Sample responses</b></p>
<p>Usage [7 comments]</p>	<p><i>-We need to take the time to get a better handle on what is being used and what is not being used.</i></p> <p><i>-We keep reshelving data. If we don't have data that it has been used in X years...we will add it to a list for librarians to review.</i></p>
<p>Relevance [4 comments]</p>	<p><i>-We look at academic programs coming up, look at recommendations from users and our staff.</i></p> <p><i>-Reviewed according to current selection needs.</i></p>

Duplication of format [3 responses]	<i>-Bibliographers and department staff periodically review for...availability of electronic format...</i>
Currency [4 comments]	<i>-By librarians and library staff based on...currency...</i>
Collection not consistently evaluated [4 responses]	<i>-Haphazardly. Some books are annual publications so they're kept up to date regularly. -Have not done much. We have surveyed faculty on journals. Nothing specific for reference collections though.</i>
Other [8 responses]	<i>-We use random student surveys to find out what resources the students would like to see. -We are very overloaded in our stacks. -Major effort underway to reduce size of print collection...</i>

***Is there anything else you would like to add?***

Two broad themes emerged from the responses to this question: the changing nature of the learning commons and the changing nature of collections for the learning commons, whether reference collections or other collections (Table VII). Respondents indicated that they were challenged to name, configure, and adjust their commons to meet user needs and interests. It stands to reason that collections for those spaces might also continually change. Multiple comments reflected this flux, indicating that the choice of format, the type of collections offered, and the challenges with making any types of collections discoverable were all factors under consideration.

**Table VII. Is there anything else you would like to add?**

<b>16 responses – 14 comments coded to broad themes concerning the learning commons or the reference collection</b>	
<b>Category</b>	<b>Sample responses</b>
Changing nature of the learning commons [4 comments]	<i>-Lots of changes to our space. We like what Grand Valley has done with a fireplace and a living room feel. Calgary has rocking chairs. NCSU took down all shelving and pushed their books to the perimeter, which is what we did too. We are experimenting with a collaborative classroom—from 8-6 Academic Affairs schedules it and we have it afterwards.</i>

	<p><i>-We are not sure what to call our new space. Have you heard of good ideas?</i>  <i>-We are struggling to find a good way to name these spaces.</i></p>
<p>Changing nature of collections for learning commons [10 comments]</p>	<p><i>-There is a trend for clubs on campus to develop their own library collections within the library (gaming groups, hacker groups, etc.)</i>  <i>-One of the things we've done with the Learning Commons is to create pop-up collections: we create thematic groups of resources concerning timely issues...campus conferences, holidays, reading.</i>  <i>-Not sure what you meant by electronic reference in the Learning Commons. Electronic is not located in any specific place so I reported on print.</i>  <i>-One of the interesting questions for me is how do you integrate reference sources so they can be used by students. I'm not sure how to do this in the e-reference environment. It's hard for students to find sources. I point out materials when they are really critical, tend to do that more in one-on-one interactions. They may like the sources, but they likely won't find it after that. Our students tend to focus much more on books and articles than on background sources. They use open source tools (Google) for background. As we move away from the front lines of providing services, a challenge is how to bring these sources forward.</i>  <i>-We are all distance librarians and our sources need to reflect that. Need to make resources/services online and as intuitive as we can.</i></p>

## Discussion

This study examined a sample of academic libraries in the ARL to discover how these libraries view the role of the reference collection within the learning commons environment, the strategies used to develop and manage these collections, and how the collections are used.

The authors began the study using a traditional information gathering tool, the online survey. The online survey had some flaws, namely that it did not provide enough flexibility in answering complex questions. This led to a smaller sample of analyzable answers than desired for a meaningful study. The researchers decided to use phone interviews to increase the sample size and to gain information missing from the survey responses. Researchers, in hindsight, suggest starting with interviews, and using the interviews to fine-tune the questions for a survey.

A heartening finding was the strong response to requests for interviews as well as the thoughtful and detailed answers provided.

The study topics—reference collections and learning commons—also created some challenges in terms of identifying the appropriated contacts. The questions dealt with collections and space planning, and different staff may deal with those areas as was revealed during the phone interviews when some interviewees indicated they did not have sufficient information about one area or the other.

Despite these challenges, 52 individuals from ARL academic libraries took the time to respond, were enthusiastic about the topic, and provided thoughtful responses that proved helpful to the questions the researchers set out to explore. Some clear themes emerged.

Responses pertaining to reference collection size and management generally agree with findings reported by King (2012), who examined reference collection development practices among ARL academic libraries with humanities and social sciences collections. This study found a higher percentage of respondents who followed a collection policy or guidelines, but was consistent in finding that policies were sometimes dated—calling into question the usefulness of collection policies or guidelines in informing practice.

This study, as with King's, found that libraries place increased emphasis on electronic reference sources. It provided further evidence that many believe their print reference collections are too large and are underused. Both studies found space (either having enough or not enough) to be a reason for weeding print collections. This study found weaker trends with regards to attention given to reference collection evaluation. Respondents believed these activities to be valuable, but some indicated that their current collection evaluation focus was with other

collections such as serials. Finally, this study, as with King's, found that librarians were

struggling to promote reference sources and wondered about the continued utility of the concept of a discrete reference collection now that so many reference sources are made available online and over a network.

Within the specific environment of the learning commons, there is still some question as to whether and what type of a reference collection is useful or will be used. The researchers were struck by the number of comments about unused collections. As learning commons environments have evolved from a focus on information-seeking to providing support for broader learning tasks, the traditional role of the reference collection may have diminished: “The core activity of a Learning Commons would not be the manipulation and mastery of information...but the collaborative learning by which students turn information into knowledge and sometimes into wisdom (Bennett, quoted in Schader, 2008, p. 38).

At the same time, this study found support for the idea that new types of collections are emerging to meet user needs within learning commons. Some collections may support the work of service partners within the learning commons, such as codebooks for data research services. Others, such as pop-up collections designed to complement a campus speaker series, reflect a desire to connect the commons with broader learning goals and student engagement. Still another emerging area is that of user-developed collections, which was mentioned by at least one respondent and may continue as users seek to make the commons environment their own.

### **Conclusion**

A shift has occurred. In the early days of the information commons/learning commons, it was thought that reference collections and services would play a prominent role in this new type of learning space and many libraries placed them accordingly (Haas and

Robertson, 2004; Bailey and Tierney, 2008). Just as learning commons have changed, so too has  
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the role of the collections and services within those environments: “A learning commons space is not created and then completed; it is a continually and often organically developing space” (Weiner, Doan, and Kirkwood, 2010, p. 207). This study revealed that academic research libraries are continuing to deliberate over the types of collections most useful to these spaces. Some have removed collections, some have found that many of their print reference sources do not appear to be useful or used in this environment save for providing a scholarly feel to the space, and others are experimenting with new types of collections.

This study focused on reference collections in learning commons in ARL academic libraries. Further studies could continue to explore the changing concept and composition of general reference collections as King (2012) began, and with a focus on a more diverse group of academic libraries. It will also be interesting to see how practice evolves with developing collections for learning commons, whether defined by users to support their interests, by partners within the learning commons space, or by library staff to help promote engagement with the broader learning environment on campus.

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## Appendix. The Survey

Does your organization have a learning commons?

Yes

No

What type(s) of learning commons does your organization have? Please check all that apply.

Undergraduate

Graduate

Faculty

Subject/Media specific

Other, please briefly describe

If your organization has more than one learning commons, please identify the one for which you will respond in the remaining survey questions.

Undergraduate

Graduate

Faculty

Subject/Media specific

Other, please briefly describe

Is your learning commons physically located within the library?

Yes

No, please briefly describe where the learning commons is located

Does your learning commons include a reference collection?

Yes

No

What purpose is the reference collection intended to support within your organization's learning commons? Briefly describe.

Please indicate the formats of the reference collection in your learning commons.

all print format

no print format

both print and electronic format

## Learning Commons Reference Collections in ARL Libraries

If your learning commons reference collection includes print sources, please estimate the size of the print reference collection and the space it occupies within your learning commons space. If your collection does not include print sources, please type none in these fields.

- a. approximate linear footage occupied by the print reference collection
- b. approximate percentage of learning commons space occupied by the print reference collection

What is the reasoning for the formats of the reference collection in your learning commons? Briefly describe.

Who develops the reference collection in your organization's learning commons?

Librarians/library staff who work in the learning commons

Non-library staff who work in the learning commons

Other, please describe

Does your organization follow a collection policy or guidelines in developing the reference collection for your learning commons? Briefly describe.

How is the reference collection in your learning commons supported financially?

Library collection budget

Other, please describe

Who uses the reference collection in your learning commons? Please select all that apply.

Librarians/library staff while helping users find information

Non-library staff while helping users find information

Users while helping themselves find information

Librarians/library staff while teaching instruction sessions

Other, please describe

How is the reference collection in your learning commons evaluated? Briefly describe.

Is there anything you would like to share about this topic that has not been covered in the preceding questions?