ASSESSMENT OF THE COMPETENCIES OF LETRAN MANILA LIBRARIANS IN DEVELOPING RESEARCH GUIDES

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ABSTRACT

The study used a mixed-method Sequential Exploratory Design which measured the competency level of Letran Manila librarians in developing Research Guides. Findings revealed that the competency level of librarians has greatly increased after being subjected to the Research Guide Development Project. Likewise, librarians still need to undergo training that focuses on skills with an equivalent "skilled" level of proficiency rating. Librarians have always been a significant link in molding the subject expertise of students. Librarians assumed such a role by taking part in the learning process of every library user, by providing reference assistance and access to all various sources (Hartsell-Gundy, 2012). Conclusively, librarians are skillful in developing Research Guides, however, most of them had difficulties achieving their current proficiency level. Aside from engaging in training and seminars, librarians must adhere to the original cycle of the Research Guide Development Project highlighting the participation of Program Coordinators to improve familiarity with the Colegio's curricular programs. Collaboration with faculty members in integrating Research Guides into the Learning Management System (LMS) may increase the utilization of Research Guides and may also improve the librarians' marketing skills.

Keywords*: Research Guides, Librarian Competencies, Assessment*

INTRODUCTION

The COVID-19 pandemic has greatly affected educational institutions worldwide, it forced several educational institutions to near-total closures. To counteract the effects of the pandemic, educators everywhere are seeking ways to make education remotely available. Karthik (2020) provides a clear view of the said novel means:

"In response to the current situation, educators have been instrumental in finding new ways to ensure learning continues for [students] by developing online and offline learning materials; learning about the working of video conferencing tools to be able to meet students regularly and conducting mental & social well-being sessions during the start of the school day and at closure."

To support the academic requirements of remote education initiatives, educators and students are now heavily utilizing information resources that are freely available on the internet. (Reimers, Schleicher, Saavedra,2020)

Relying solely on free internet resources is not enough to meet the intended educational outcomes. The need for resources that were developed specifically to support curriculum and pedagogy is still very vital to achieve quality education. For this reason, librarians around the world of all types have been working hard to provide access to collections and services remotely. (Kumar & Khode, 2004)

Librarians have always been a significant link in molding the subject expertise of students. Librarians assumed such a role by taking part in the learning process of every library user, by providing reference assistance and access to all various sources (Hartsell-Gundy, 2012). Since Librarians are equipped with skills and expertise in providing resources that are suited in an online educational setting (Sasso, 2016), the remote learning initiatives nowadays never become a factor to hinder the library from providing optimum services. One of the best solutions devised by librarians to promote and

enable virtual access to the library would be through the development of "online research guides".

Different names were associated with research guides, such as pathfinders, subject guides, and course guides, all these are tailored parts of library resources used by library users. (Sinkinson, Alexander, Kahn, Hicks, 2012). These guides were designed to provide the precise information that the researcher desires. Research guides also contain instructions and other vital information to accomplish a research task. (Puckett, 2015).

The clamor for Research Guides began in the 1970s, 51 years after its conception, its purpose, and function are still the same. Subject specialists developed these research guides to lead researchers to information sources regardless of media format (Tshetsha, 2019). Patricia Knapp, a staff member of the Model Library Project of Project Intrex of the Massachusetts Institute of Technology is considered the inventor of Research Guides. Back then, Pathfinder was its original name. Knapp devised it to teach students to "find a path" appropriate to their library's organization. According to Canfield (1972), Patricia Knapp's original intention for pathfinders is to function as a step-by-step, point-of-need reference, and instructional tool that supports the first three-five hours of research. Its contents were originally arranged in a single 8.5 x 11-inch sheet of paper.

Nowadays, Research Guides have dramatically evolved from printed handouts or booklets to a full-scale online resource directory. The interest for such guides grew exponentially, it is a unique research tool that many authors find intriguing, some articles closely examine research guides, examining their history as well as major trends. Emanuel (2013) provided the outlined historical accounts of Pathfinders, from the printed bibliographies of the 19th century to the sophisticated online research guides of today that utilize online platforms such as LibGuides, SubjectsPlus, and Library a La Carte.

In the international library scene, particularly in western countries, developing research guides is already a staple task for librarians. But the practice of using printed guides or even the use of website integrated in-house directories are no longer utilized. Western librarians already advocate the use of proprietary platforms such as Libguides to develop such guides, which is considered the most popular web publishing and content curation platform for libraries today. To date, according to the Springshare website, the Libguides platform is already being utilized by 201,597 Librarians from 5,599 institutions worldwide.

In the Philippines, research guide development has become one of the paramount service offerings of libraries. The sudden interest in research guides was triggered by the growing needs of online learning initiatives of educational institutions. Most local research guides were made accessible via downloadable PDF documents and are commonly stored within cloud-based storage solutions such as google drive or Microsoft OneDrive. To date, only DLSU Libraries and the College of Saint Benilde's Br. Fidelis Leddy Learning Resource Center, utilize the Libguides platform in developing research guides.

Last August 11, 2020, Colegio de San Juan de Letran, Manila launched its research guides, which were made available via the Letran webpage. The guiding principles that kept the project on track are as follows:

1. To support the virtual education initiatives of the Colegio
2. To increase the utilization of all the information resources of the library (Due to the Covid19 Pandemic, the project will only focus on curating online information resources.)
3. To develop the subject expertise of librarians. The project will serve as a training ground for Subject Librarianship.

The project was conceptualized last May 1 to 16, 2020 by a 3-man team. During the conceptualization phase, the project proponents used google suite applications to prepare the procedural manual and the other requirements of the project. A trial and training phase was made after the approval of the project, which lasted for almost 4 months. The said phase allowed librarians to master the research guide development process and learn the required set of skills.

To ensure that the project produces only the best output, Letran librarians were divided and given several project roles, each role has its own set of responsibilities to focus on during the development of research guides. This is further described in table 1.

Table 1. Project Roles

Role	Responsibility
Research Guide Coordinator	– Distribution of subjects for Research Guide Development – Evaluation of resources selected by Subject Librarians. – Provides coaching and mentorship to Subject Librarians. – First level Quality Control of Research Guides – Monitoring of Research Guide utilization
Subject Librarian	– Content curation of information resources related to subjects for research guide development
Layout Coordinator	– Development of the final layout of Research Guides – Development of promotional e-posters
FB Page Admin / Library Systems Administrator	– Promotion of research guides to the Library FB page – Promotion of Research Guides to the webpage of the Colegio

Furthermore, the research guide project follows a development paradigm that further promotes quality and excellence in the output to be produced.
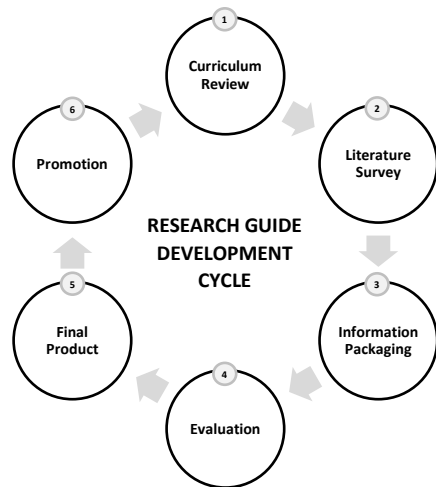

Figure 1. Research Guide Development paradigm

Figure 2 illustrates the paradigm of the entire Research Guide Project, which showcases 6 interconnected stages. Stage 1 is Curriculum review; in this stage Subject Librarians will review the syllabus and CHED CMO of the subject scheduled for research guide development. The review will be the basis in performing Stage 2: Literature Survey, which is all about locating relevant information resources. Subject Librarians will explore resources available in the library and on the open web. On the other hand, stage 3 involves forging all the available information resources into one promotional product: e-Research Guides. Under this stage, the Research

Guide Coordinator will closely collaborate with the other coordinators of the project.

Under stage 4: Evaluation, the developed research guides will undergo 2 levels of quality control measures, to be performed in sequence by the following: 1. Research Guide Coordinator, 2. Chief Librarian. The result of the evaluation will be the basis for developing the final version of the Research Guide (Stage 5: Final Product).

Finally Stage 6: Promotion, involves marketing the Research Guide on two web platforms: the Letran Website and the Library Facebook Page. In this stage, the participation of the LISTEN department is very vital.

But the development of research guides does not end at stage 6, for after a year of web publication; the developed research guide will be revisited and updated, hence the protocols applied to stage 1 to 6 will again be repeated (Research guide development is an infinite cycle of developing and updating)

Present Study

Competencies are considered as the compendium of knowledge, skills, and attitudes to efficiently perform a task. Having upskilled competencies are vital to pursue personal growth and for an institution to thrive (Okoye, 2013)

Maintaining a certain level of proficiency in performing certain tasks is very vital to produce outputs that meet end-user expectations. In the realm of librarianship, the changing landscape of information and information technology and services requires a certain level of competency from library professionals. The challenging information and research landscape of universities require diverse competencies in information professionals (Farooq, et. al.,2016). Likewise, the librarians need to increase learners' competencies and knowledge through the services and resources that they are providing (Corbet, Brown, 2015).

One of the responsibilities of librarians that warrants constant competency upskilling would be in the development of library learning materials such as "research guides". This study intends to measure if the competencies of Letran Manila librarians are enough to effectively develop research guides.

To pursue the study, the researchers first interviewed the librarians assigned as "Research Guide Coordinators" during the trial and training phase of the project. The goal of the interview is to determine the skill sets needed to effectively

produce research guides. Then using the identified skill sets, the researchers conducted a skills survey that determines the prior and present competencies of librarians in research guide development as represented in figure 2.
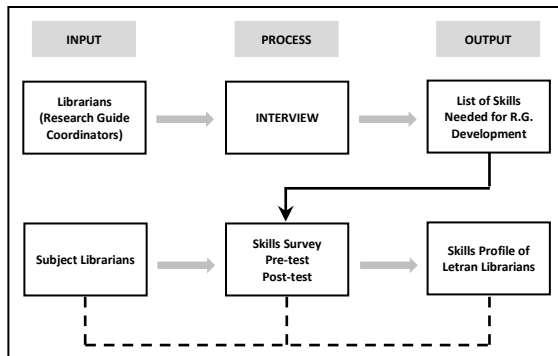

Figure 3. Conceptual Paradigm

Research Problems

The following are the research problems that the present study intends to address:

1. What are the required competencies needed by librarians in the development of Research Guides?
2. What is the present skills profile of librarians following the identified required competencies for research guide development?
3. What is the recommended training that librarians need to pursue to better improve the development of research guides?

METHODOLOGY

Design

A mixed-method Sequential Exploratory Design was used to determine and assess the lived experiences and skills profile of key respondents in connection with research guide development. The initial stage utilized Qualitative (exploratory) data gathered from the interview followed by the development of the skills survey instrument (Quantitative)in the succeeding stages. (Edmonds & Kennedy, 2017)

Participants

The respondents of the study include 2 former (both males) and 8 (1 male and 7 females) currently tenured librarians of Letran Manila Library.

Instruments

The study utilizes 2 research instruments:

Interview. This is a semi-structured interview that aims to identify the competencies needed by librarians in developing research guides. Librarians that were assigned as Research Guide Coordinators (4 librarians, 2 of which are no longer connected with Letran) during the "trial and training phase" of the project were subjected to this instrument. Research Guide Coordinators served as the trainers/ coaches of all Subject Librarians, furthermore, they also provided the 1st level of quality control on all guides before subjecting to layout development. The above-mentioned Research Guide Coordinators were also the ones who conceived and introduced the research guide project.

Pre and Post Skills Survey. This instrument was developed to identify the competency level of librarians in developing research guides before and after the implementation of the project. All tenured librarians that served as "Subject Librarian" roles were subjected to this survey.

Procedure

The researchers first sought the approval of the chief librarian and the informed consent of the 2 former librarians. Once the requests were approved, the researchers proceeded with data gathering using the instruments below:

Interview. A validated questionnaire was designed, and an interview was conducted via zoom web conference. Then the researchers utilized the data gathered from the interview to develop the skills survey instrument.

Skills survey. Using the competencies derived from the interview of Research Guide Coordinators, the skills survey was developed and validated. In the said survey, 7 key competencies were identified: (1) Information Literacy Skills, (2) Familiarity with Library subscription databases (EBSCOhost, ProQuest, etc.), (3) Awareness of Open Access Educational Resources, (4) Google suite familiarity, (5) Marketing Skills, (6) Familiarity with the curricular needs of Letran Programs, and (7) Collaboration skills.

2 batches of the survey were developed using google forms and were distributed via Facebook messenger to the target respondents. A pre-survey was first administered, the respondents were keenly instructed to rate their proficiency level on the skills based on their perceived level of competency before the research guide development. The Post-skills survey was immediately administered after the researchers received all the responses from the previous survey. In this survey, respondents were instructed to again rate their proficiency level but this time the sole basis would be their current skills in research guide development.

Measures

Gathered interview data were analyzed by grouping responses with similar themes. The pre- and post-skills survey utilizes the Likert scale for skill level below to rate the degree of proficiency on the 7 skills identified in this study:

Table 2. Likert scale interpretation

Scale	Intervals	Descriptive Rating
5	4.21-5.0	Highly Skilled
4	3.41-4.20	Skilled
3	2.61-3.40	Average or Moderately Skilled
2	1.81-2.60	Not very skilled
1	1.01-1.80	not at all skilled

Gathered data in the skills survey were tallied, then the weighted average mean was computed using the formula

$$WA = \frac{WP}{F} \qquad eqn\ 1$$

where   WP = Weighted Product

WA = Weighted Average

F = Frequency

The average days consumed by librarians in developing the first batch of research guides were computed using the Turnaround time (TAT) formula.

$$Turnaround\ time = End\ time\text{-}Start\ time + 1\ day \qquad eqn\ 2$$

where

Start time = Range date of assigned, revised, the completed final layout

End time = Marketing Date

TAT = Turnaround time

RESULTS AND DISCUSSION

Required Competencies in Developing Research Guides

According to the interview data gathered from the Research Guide Coordinators, to produce effective research guides, librarians must possess the following competencies.

Information Literacy Skills. All four (4) Research Guide Coordinators unanimously agreed that sharpened information literacy skills are needed to produce effective research guides. This is supported by the following problems encountered by Research Guide Coordinators while evaluating the curated output of Subject Librarians:

- Inferior quality of research materials gathered.
- Unable to present resources that would support the target subject matter.
- Presence of unreliable sources.
- Links to resources are unresponsive.
- Bibliographic data are not enough to acknowledge the originator of gathered resources.

Information literacy is a set of abilities requiring individuals to "recognize when information is needed and can locate, evaluate, and effectively use the needed information (ACRL, 2000). These skills are badly needed by Subject Librarians to effectively locate appropriate groups of resources that could support the academic programs assigned to them for research guide development. Scouting resources from paid subscription databases and open access portals is a very daunting task, it is quite easy to be overwhelmed with the plethora of available information options. Mastering the following sub-skills of Information literacy will greatly help in curating relevant information resources:

- Determine the extent of information needed.

- Access the needed information effectively and efficiently.
- Evaluate the information and its sources critically.
- Use information effectively to accomplish a specific purpose.
- Understand the economic, legal, and social issues surrounding the use of information.

Familiarity with Library subscription databases. All the Research Guide Coordinators concluded that having the appropriate familiarity in accessing library subscription databases is very vital. The conclusion is warranted by the following observed difficulties because of not having initial tutorials: limited knowledge in terms of key features and functionality of the specific databases; filtering search results is not consistently performed; and copying of links not appropriate in retrieving the resources.

Awareness of Open Access Educational Resources. Research Guide Coordinators also observed that the majority of subject librarians, even themselves, had difficulties in locating and using the appropriate Open Access Educational Resources such as Limited knowledge about open access educational websites, where one may access the specific type of open educational resources (e-thesis, e-books- journals); Unfamiliar with the access restrictions for Full Text or Abstract; Some subjects have limited local open access resources and references.

Google suite familiarity. Research Guide Coordinators also observed that most Subject Librarians had difficulties in remotely accessing project files via google drive and manipulating encoded data on google worksheets and documents. This is an expected observation since, during the onset of the project, Letran librarians were not yet fully acquainted with the remote management of projects.

Marketing Skills. Though Research Guide Coordinators were not involved in layout development and promotion of research guides, they unanimously concluded that marketing skills are very vital competencies to hone, specifically the following marketing tools:

- Social media marketing
- Online and offline marketing apps/ software
- Public relation skills

Familiarity with the curricular needs of Letran Programs. The inability of subject librarians to fully grasp the scope and limitation of academic programs at the onset of the implementation of the project is the major difficulty observed by R.G. coordinators. Difficulties observed were as follows: At the onset of the project, specific subjects were given to Subject librarians while copies of CHED CMO/Course description/syllabus are still to be completed; concerns and issues on technical terminologies, and inconsistencies in subject/title codes.

Familiarity with the scope of the programs is very vital to efficiently locate pertinent information resources. To cope with the difficulty, Research Guide Coordinators required Subject Librarians to study the designated CHED CMO and syllabus of their assigned academic programs.

Collaboration skills. Due to the limitations set forth by the community lockdowns imposed by the covid19 pandemic, remote collaboration became a challenge. For this reason, Research Guide Coordinators concluded that heightened collaboration skills are very vital to produce effective research guides. The respondents also concluded that collaboration should not be limited within a department, it must extend to other departments and key institutions that may contribute to the success of the project.

Table 3. Competency Profile of Librarians in Research Guide Development

SKILLS	Former Skills (Pre-Test)	Mean	Current Skills (Post Test)	Mean	Mean Difference
1.Information Literacy Skills	Average or Moderately Skilled		Skilled		
- Determine the extent of information needed	3.13		4.25		
- Access the needed information effectively and efficiently	3.13		4.13		
- Evaluate information and its sources critically	3.00	3.08	4.00	4.10	1.02
- Use information effectively to accomplish a specific purpose	3.13		4.13		
- Understand the economic, legal, and social issues surrounding the use of information (proper citation)	3.00		4.00		
2. Familiarity with Library subscription databases (EBSCOhost, ProQuest, etc.)	Average or Moderately Skilled		Highly Skilled		
- Ability to perform simple and advance searches	3.25	3.00	4.63	4.51	1.51
- Awareness on different features and functions	2.75		4.38		
3. Awareness of Open Access Educational Resources	Average or Moderately Skilled		4.25Skilled		
- Ability to perform simple and advance searches	3.13	2.88	4.25	4.19	1.31
- Awareness on different features and functions	2.63		4.13		
4. Google suite familiarity	Average or Moderately Skilled		Skilled		
- Docs	2.63	2.57	3.63	3.69	1.12
- Sheets	2.50		3.75		
5. Marketing Skills	Average or Moderately Skilled		Skilled		
- Familiarity with social media marketing	2.88		4.00		
- Online and offline apps / software that can be utilized for marketing (ex. Canva, photoshop, etc.)	2.50	2.71	3.88	3.92	1.21
- Public relation skills	2.75		3.88		
6. Familiarity with the curricular needs of Letran Programs	Average or Moderately Skilled		Skilled		
- Familiarity with CHED CMOs	2.63	2.69	4.13	4.19	1.50
- Familiarity with the prescribed references for each program	2.75		4.25		
7. Collaboration Skills	Average or Moderately Skilled		Highly Skilled		
- Collaborates with colleagues to provide service to users	3.13		4.38		
- Develops collaborative relationships within the profession to enhance service to users	3.13	3.07	4.25	4.22	1.15
- Develops and maintains partnerships beyond the library profession to strengthen services to users	3.00		4.13		
- Collaborates and partners with the user in the information seeking process	3.00		4.13		
Overall Mean	2.86 Average or Moderately Skilled		4.12 Skilled		

Table 3 showcases the competency level of librarians in creating research guides before (former skills) and after (current skills) being subjected to the processes involved in the research guide project.

In the area of "information literacy skills, the mean score for former skills is 3.08 (average or moderately skilled). On the other hand, "current skill" garnered a total score of 4.10 (skilled). There is a noticeable 1.02 increase in competency level.

Meanwhile, the mean score for the area of "familiarity with subscription databases" bears the most increase among all the skill categories. From former skills (3.00 - average or moderately skilled) to current skill (4.51 - highly skilled) an increase of 1.15 was recorded. On the other hand, "Google suite familiarity" accumulated the least rise in the mean score (only 1.12 difference). The total scores for this category are as follows: former skills: 2.57 (not very skilled), current skills: 3.69 (skilled).

As seen in table 5, all the remaining skill categories distinctly experienced an increase in mean scores from

former skills to current skill sets. In "awareness of open access educational resources", the increase in mean score is 1.31 (former: 2.71- average or moderately skilled, current skills: 3.92 – skilled), while "familiarity with the curricular needs of Letran programs" garnered an increase of 1.5 (former skills: 2.69 - average or moderately skilled, current skills: 4.19 - skilled), then lastly, "collaboration skills" earned a 1.15 increase (former skills: 3.07 - average or moderately skilled, current skills: 4.22 – highly skilled)

In a nutshell, the competency level of librarians in creating research guides has greatly increased after being subjected to the research guide development project. The average mean score of all the former skills combined is 2.86 which is interpreted as "average or moderately skilled", while the total score for all the current skill sets is 4.12 which is interpreted as "skilled."

Recommended Trainings for Librarians

Given the results of the skills profile of Letran Manila Librarians, the researchers would like to recommend the training plan below that covers all the competencies with "skilled" results in the post-test skill survey.

Table 4. Recommended Training Plan for Librarians

SKILLS	OBJECTIVES	ACTIVITIES	TIME FRAME
Information literacy	To equip Librarians with the following skills: – Determine the extent of information needed. – Access the needed information effectively and efficiently. – Evaluate the information and its sources critically. – Use information effectively to accomplish a specific purpose. – Understand the economic, legal, and social issues surrounding the use of information. (Proper citation)	Participate in the Letran RPD research convention or research conventions sponsored by library associations	Annually Regular invitation for a research proposal by the Research and Publication Department.
Awareness on Open Access Educational Resources	To equip librarians with the following competencies: – Ability to perform simple and advanced searches. – Aawareness of different features and functions	Enroll in Web Junction courses related to open access publishing and reference services. (or other free online course platforms) https://learn.webjunction.org/ Develop online tutorials in accessing and navigating specific OER platforms. (To be advertised in the Letran Manila website and Library Facebook page)	Summer Break Part of the annual staff development program. Annually Part of the Annual Library User Education Program.
Google suite Familiarity	To familiarize librarians with advanced features of the following G suite apps: – Docs – Sheet	Virtual Training Session about Google Suite (to be provided by the IT Department)	Monthly Part of the staff development program.
Marketing skills	To equip librarians with the necessary skills to master the following marketing tools: – Familiarity with social media Marketing – Online and offline apps/ software that can be utilized for marketing (ex. Canva, photoshop, etc.) – Public relations skills	Enroll in Web Junction courses related to social media marketing. (or other free online course platforms) https://learn.webjunction.org/ Virtual training on Photoshop and online apps for video and photo editing (to be provided by the IT Department)	Within semestral period -Part of the staff development program. Within semestral period Part of the staff development program.
Familiarity with the curricular needs of Letran programs	To provide librarians with an intermediate understanding of the scope and needs of Letran programs.	Participate in the curriculum subject mapping activities of Letran Manila programs Participate in the curriculum planning and development of Letran Manila programs	Annually Regular coordination of the library with the academic departments. Annually Regular coordination of the library with the academic departments.

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CONCLUSION AND RECOMMENDATIONS

Based on the collected findings of the study, the following conclusions and recommendations were drawn.

Librarians are proven to be skillful in developing research guides. However, further training is still needed since the average total mean score for their current skills is only 4.12 which is interpreted as "skilled".

The Research Guide Project has significantly improved the competencies of librarians.

Librarians had a hard time achieving their current proficiency level in developing research guides. This is supported by the vast number of problems encountered by Research Guide Coordinators during the "trial and training phase" of the project. Another evidence that supports this conclusion is the computed average number of days consumed by individual librarians in producing the first Research Guide Layout, which states that it took 28 days to produce the first final output as described in table 5.

Table 5. Research Guide Development Process Turnaround Time

Curriculum Review	
Literature Survey / Information Packaging	23.9 days
Evaluation	
Final product	10.4 days
Promotion	50.2 days
Average	**28 days**

Current Research Guide coordinators must adhere to the original cycle of Research Guide Development (as specified in the Research Guide Development Manual) which highlights the participation of program coordinators in the quality control of produced Research Guides. The participation of program coordinators will not only improve the quality of Research Guides but will also allow Subject Librarians to improve their familiarity with the curricular needs of Letran Manila Programs.

Librarians should collaborate with faculty members in integrating research guides into the learning management system (LMS) of Letran. Such collaboration will not only increase the utilization of research guides but will also improve the collaboration and marketing skills of librarians.

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