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How PRIMO Tutorials are Shared within Their Institutions

Single Sentence Abstract

Our team explored the decisions and practices around the creation and discoverability of library tutorials online using virtual interviews and website observations, and found a split between motivations, primarily focused on students, and marketing and discovery efforts, far more focused on faculty, suggesting opportunities for including stakeholders at earlier stages of the process and developing language to reflect user needs.

Motivation(s) for Project

We identified an under-studied question about online tutorials: practices to encourage their discovery and use. Underlining our work is the conviction that tutorials offer access: to distance education students, to students with differing learning needs, to those who benefit from multiple presentations of information in varying formats. Thus tutorial discovery is not an academic question, it is a vital praxis.

To address the question of how librarians described and placed their tutorials and when and why they made such decisions, our team ran an exploratory study that sought to determine the ideological and practical decisions, both explicit and implicit, made in the process of tutorial creation.

Online tutorials have become increasingly prevalent in library instruction (Dennie and Breir 2021, Sanders 2018). While the enforced remote learning of recent years has accelerated the pace of production, the trend predates the pandemic and is, in many ways, a response to shifting conditions that will continue to shape the profession: "[a]s library budgets continue to tighten and technology continues to advance, libraries are flipping classrooms and deploying technology in order to better scale our instructional efforts" (LeMire 2016). This reality—online tutorials have become, and will remain, a common practice in information literacy instruction—necessitates that librarians

carefully assess best practices in the field. And indeed, much work has been done in this direction: Blummer and Kritskaya (2009) and Hartog (2018) have offered literature reviews a decade apart that demonstrate that the field is both actively seeking such practices and in some general agreement as to what they are.

Yet there is a striking gap in these best practices. While practitioners generally agree about a number of best practices for the planning and creation of tutorials, the literature contains almost no discussion about ensuring discoverability of the completed tutorial in terms of description, placement, and sharing.

Partners and Stakeholders

Our stakeholders are faculty, students, and fellow librarians who assigned, used, reviewed, or may draw inspiration from PRIMO [(Peer-Reviewed Instructional Materials Online database)](#) tutorials from 2019-2021.
- We found that many of the tutorial creators targeted the tutorial directly to faculty, as they were more likely to assign the objects to students and/or provide direct links to the objects.
- Students provided feedback to many of our PRIMO tutorials on the usefulness of the tutorials, and also would benefit from a more uniform method for discovering and accessing tutorials.
- Librarians who are tasked with creating tutorials at their institution would greatly benefit from a professional guide, supported by qualitative and quantitative data, on how best to create, place, and market the tutorials for maximum usage.

Inquiry Question

We asked where and how information literacy instruction tutorials are placed in order to begin creating a vocabulary and system for discussing where and how tutorials are located, linked, or shared in order to ensure they are reaching target populations.

Study Participants/Population

We identified tutorials using the [Peer-Reviewed Instructional Materials Online (PRIMO) database](#), which is a project from the American Library Association's Association for College and Research Libraries Instruction Section (ALA ACRL IS) to highlight notable online instruction materials from academic libraries. We focused on the 18 tutorials added to the PRIMO database from 2019-2021. All tutorials come from academic libraries, and all authors are (or were at the time of submission) employees at those libraries. We asked to interview either the tutorial author or, if they were no longer at the institution or did not wish to be interviewed, someone else who is currently responsible for the tutorial. We were able to schedule 7 interviews.

Method(s) of Data Collection and Analysis

We began with a literature review focused on best practices for online library tutorials as well as, more generally, usability studies in library website offerings. We used this literature to create a preliminary observational grid for the PRIMO tutorials, focusing on technology, need, audience, placement, both on a specific page and within the larger architecture of the website, and discoverability issues such as links and language. Discussing these results, as well as the literature review, allowed us to formulate questions for our interviews, which focused on need, creation, physical placement, discoverability, and feedback [see appendix 1].

After conducting and transcribing the interviews, we began a process of inductive coding, each generating a list of possible themes. After creating codes from our work, we all coded the same interview to look for areas needing clarification and to assess consistency and reliability between raters. From this we created a final coding grid [see appendix 2]: each interview was coded by 2 researchers to assure inter-rater reliability and differences were discussed and resolved. We did a simple tally of mentions of each coding category. Since our pool did not reach anything near statistical significance, our analysis sought patterns from the raw numbers. In particular we looked for:

- surprising clusters or lack of clusters
- relationships (direct or inverse)
- any areas worth further verbal analysis

This work also allowed us to refocus our physical observations, using both patterns that emerged through our interviews and specific details of placement that interviewees did not remember or did not mention. We created and completed a new observational grid for the tutorials included as interview subjects [see appendix 3]. We then analyzed those results addressing the same question as those bulleted above, as well as one further one:

- surprising relationships (direct or inverse) between physical observations and interview

Findings

Of the 7 closely analyzed tutorials, 6 tutorials were used as an assignment in a specific course. Five interviewees specifically mentioned faculty as their target audience, but only 3 referenced students as a target audience.

All 7 tutorials were shared as a direct link from librarians to faculty, and 5 out of 7 also embedded the tutorial in some way into the university's learning management system.

Five out of 7 interviewees mentioned accessibility as a factor when creating the tutorials, although not in specific detail.

Finally, as previously mentioned, assessment was an important element for all 7 tutorial creators, but there was no commonly used strategy for assessment. Library student employee testing was used in 4 tutorials, peer-review was used in 3 tutorials, 1 tutorial used both student employee testing and peer-review, and 1 tutorial gathered user feedback in a survey at the conclusion of the tutorial (although this survey was not required).

Unique Instances/Findings

While we discovered many trends and commonalities between libraries throughout the course of analyzing the data, we did note several unique instances which varied from the majority of the data.

- **One** of the interviewees did not assign the tutorial to a classroom graded assignment
- **Two** of the total number of tutorials used a dedicated tutorials page
  - In both cases, this tutorials page was linked from the homepage of the library website, and only required one click to access the full tutorials page where the awarded tutorial was located.
- **One** library had a hired Graphic Designer on staff
- There were no consistent, recommended, or widely used tools

Textual Analysis

We were struck that in each interview, faculty were identified as the intended audience in terms of advertisement and discovery, but faculty were not mentioned nearly as frequently in the motivations for creation of the tutorials. We did some rudimentary textual analysis of the transcript sections describing initial motivation. We created a document with each response dealing with motivations entered as a separate paragraph, which allowed us to see trends between answers, as well as in the full corpus. We then filtered out common stopwords, in addition to filler and process words that appeared frequently within our corpus. The results are in Figure 1. (Faculty only appeared 6 times total and is not in the pictured part of the list).

			Term	Count ↓	Tre
⊞	☐	1	know	32	
⊞	☐	2	students	24	
⊞	☐	3	tutorial	16	
⊞	☐	4	year	14	
⊞	☐	5	information	13	
⊞	☐	6	it's	13	
⊞	☐	7	literacy	13	
⊞	☐	8	library	12	
⊞	☐	9	need	12	
⊞	☐	10	online	12	
⊞	☐	11	time	12	
⊞	☐	12	class	10	
⊞	☐	13	librarians	10	
⊞	☐	14	tutorials	10	
⊞	☐	15	that's	9	
⊞	☐	16	think	9	
⊞	☐	17	work	9	
⊞	☐	18	instruction	8	
⊞	☐	19	lot	8	
⊞	☐	20	research	8	
⊞	☐	21	use	8	

Figure 1: Frequency chart of language from transcript on motivation

We then examined the words "linked" (those appearing in proximity) with students (and faculty [figure 2].
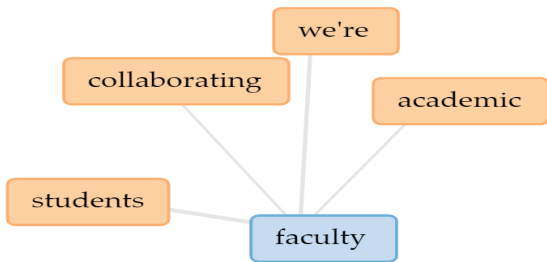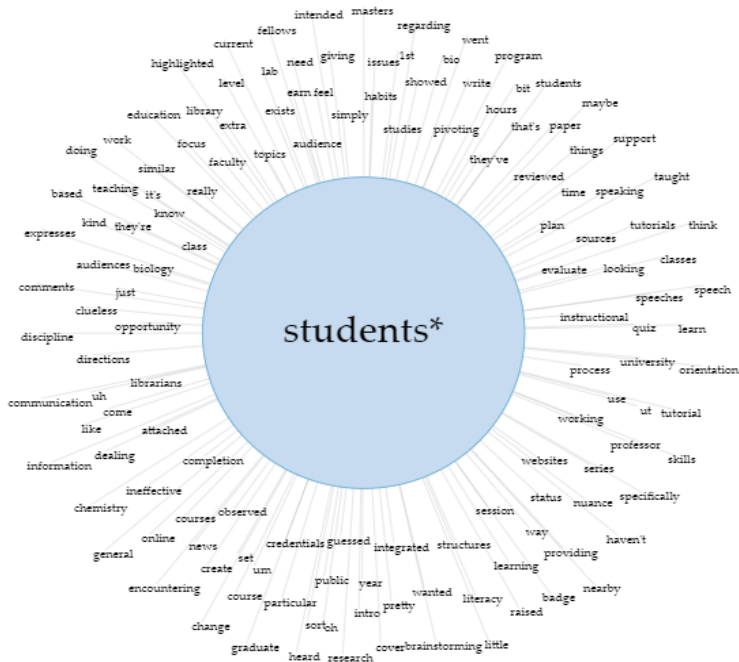
Figure 2: "Links" (collocated terms) for Students and Faculty

Several trends emerged for further analysis. We looked at the terms or stems for "faculty," "information," "instruction," "literacy," and "students" in relationship to each other throughout the course of the document (with each segment representing a different interview) [figure 3].
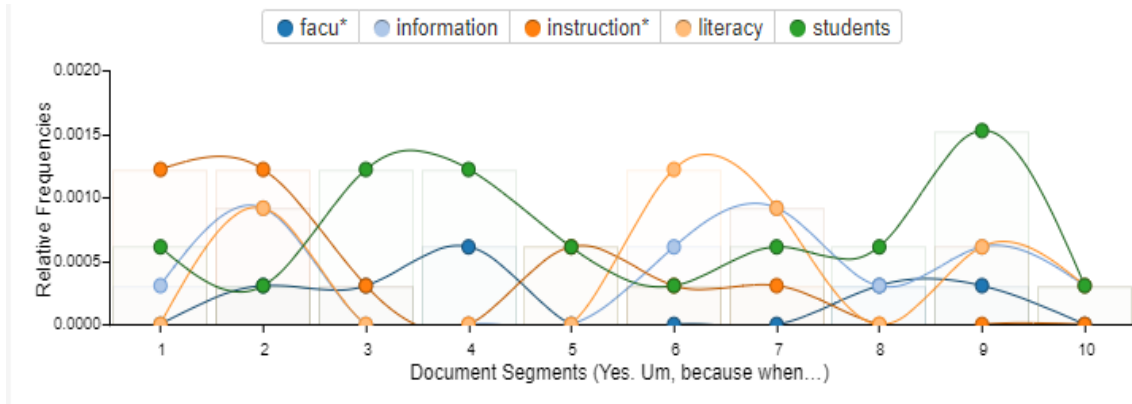
Figure 3: Frequency Analysis for Selected Terms by Interview

We isolated "know," the most frequently occurring term: whose knowledge did it refer to and in what contexts? The results can be seen in Figure 4.

Left	Term	Right
of their time goes, you	know	, aside from, um, Manning the
by, um, uh, upperclassmen, you	know	, second to fourth year, then
these classes, even though, you	know	, they, they wanna help. And
well let's try tutorials, you	know	, and, and videos as well
came from. And then, you	know	, hopefully they were hoping that
Uh, I think, well they	know	just because it's so recent
because it's so recent, they	know	that there are a lot
have research components .So we	know	the need is there and
the exact assessment, but I	know	there was one, uh, that
courses, which makes sense, you	know	, cuz of our, our structure
on, on that. So we	know	that there's a need. Yeah
the flags away, but we	know	the need is there. It
where the needs are. You	know	, they get a lot of
felt like, Oh, they should	know	this, or they're getting this
or specific need where, you	know	, my administrators came and said
resource, or we had, you	know	, data that supported that. But
they haven't done that, you	know	, and they don't know what
you know, and they don't	know	what they're looking at, you
across disciplines. So, so I	know	there were other questions there
students would need... They should	know	about it, topics that we
our library. Typically we, you	know	, have, you know, online learning
we, you know, have, you	know	, online learning objects that, you
online learning objects that, you	know	, either meet general research helped
research helped me. So, you	know	, like the basics of how
writing courses, typically they, you	know	, are able to use other
important. As well, as, you	know	, kind of intro to speech
question, um, the initial. You	know	, impulse or ideas surrounding the
quarter system. So it's, you	know	, uh, fall winter spring. And
the library where, um, you	know	, they're just being told information
Uh, and so forth, you	know	, we had various conversations about
a lack of understanding. You	know	, they just kind of Google
the kind of pandemic, you	know	, 24,021 year. So. We typically

Figure 4: Context for "Know" in All Interviews

Analysis of Findings

Unique Instances

Because there was, in most cases, not an easily accessible dedicated tutorials page, we found that it was more difficult for the general public (i.e. other students) to access these tutorials outside of or beyond the assigned, individual classrooms.

Although there were many staff members on each team of creators (the average being 3 or more library staff) only 1 team had a dedicated graphic designer, which reveals that much of the design work usually falls on those whose jobs are not specifically dedicated to graphic arts.

Finally, because there was not a consistent, widely-recommended library tutorials creation tool or mechanism, there was not an obvious finding which pointed to the best practice for tools in library creation.

Textual Analysis

"Student" is the second most frequently occurring term, suggesting that while tutorials are marketed to faculty, they are initially designed around student needs. The frequency of other student outcome terms (such as "know," "information," "literacy," and "think") indicates the sort of outcomes librarians are aiming for in these tutorials: further research as to how often these goals are made explicit in marketing to faculty is worth further investigation.

Also notable is the cluster of words focused on the library, and librarians, and logistics such as "instruction," "time," and "work." While the interviews revealed less emphasis on tutorials as a necessary means to deal with workload than the literature suggested, it was still a prevalent consideration. Further defining what sort of labor tutorials are meant to address will be helpful both in conceptualizing design and evaluating effectivity.

As can be seen in the word links, a vast amount of outcomes, means, and actions get connected to students, while the emphasis with faculty is on working together ("collaborating," "we") as well as broad outcomes ("students," "academic"). In light of this emphasis on faculty collaboration as well as their centrality in discovery, it is surprising that consultation with faculty was almost never mentioned in motivations. Further means of starting this collaboration earlier in the process seems worth investigating. Refining the student outcomes, through means such as topic analysis and clustering, will allow librarians to both clearly pinpoint tutorial objectives in creation and effectively market them for discovery by faculty.

In looking at frequencies, it can be seen that "faculty" and "students" generally follow each other in terms of frequency, albeit with students 7 times more frequently. This suggests that librarians view their needs in tandem, with student outcomes predominating. Students and instruction seem to have almost inverse relationships, suggesting perhaps that one term or the other predominates how librarians conceptualize the goals of the tutorial: the value of separating the learner and the mechanism might be worth separating out. Alternatively, it is possible that instruction speaks more to the librarians' role in student outcomes.

Overall, the use of "know" revealed the existence of uninterrogated beliefs about the knowledge and processes of both librarians and students. While a number of the uses of "know" might be understood as verbal filler ("you know"), even this group offered a number of implied communities of understanding ("which makes sense you know, because of our structure"; "online learning objects that, you know, either meet general research needs"). Considering the interviewers were fellow librarians, there is a suggestion that motivations often derived from common knowledge in the field, also marked by the use of "we know" in multiple contexts. While discipline specific knowledge is foundational to any successful operation, it is worth further investigation as to what objectives are considered to be axiomatic, both to allow librarians to define and assess their own actions, and to communicate effectively with stakeholders. It is also worth following the "they know" phrases. This language suggests, again, certain deeply held beliefs about what students already know, and identifying these beliefs will allow more focused planning and evaluation.

Next Steps

Due to the exploratory nature of this first study, we plan to reassess our data and results at the end of this CARLI Counts cohort and further investigate this issue of placing and creating tutorials. At this time, our field is lacking a helpful "best practices" guide to creating and placing tutorials, and we hope that our continued investigation begins to generate and shape those guidelines. Furthermore, we have submitted a panel proposal to the ACRL 2023 Annual Conference and hope to present our findings to a wider audience.
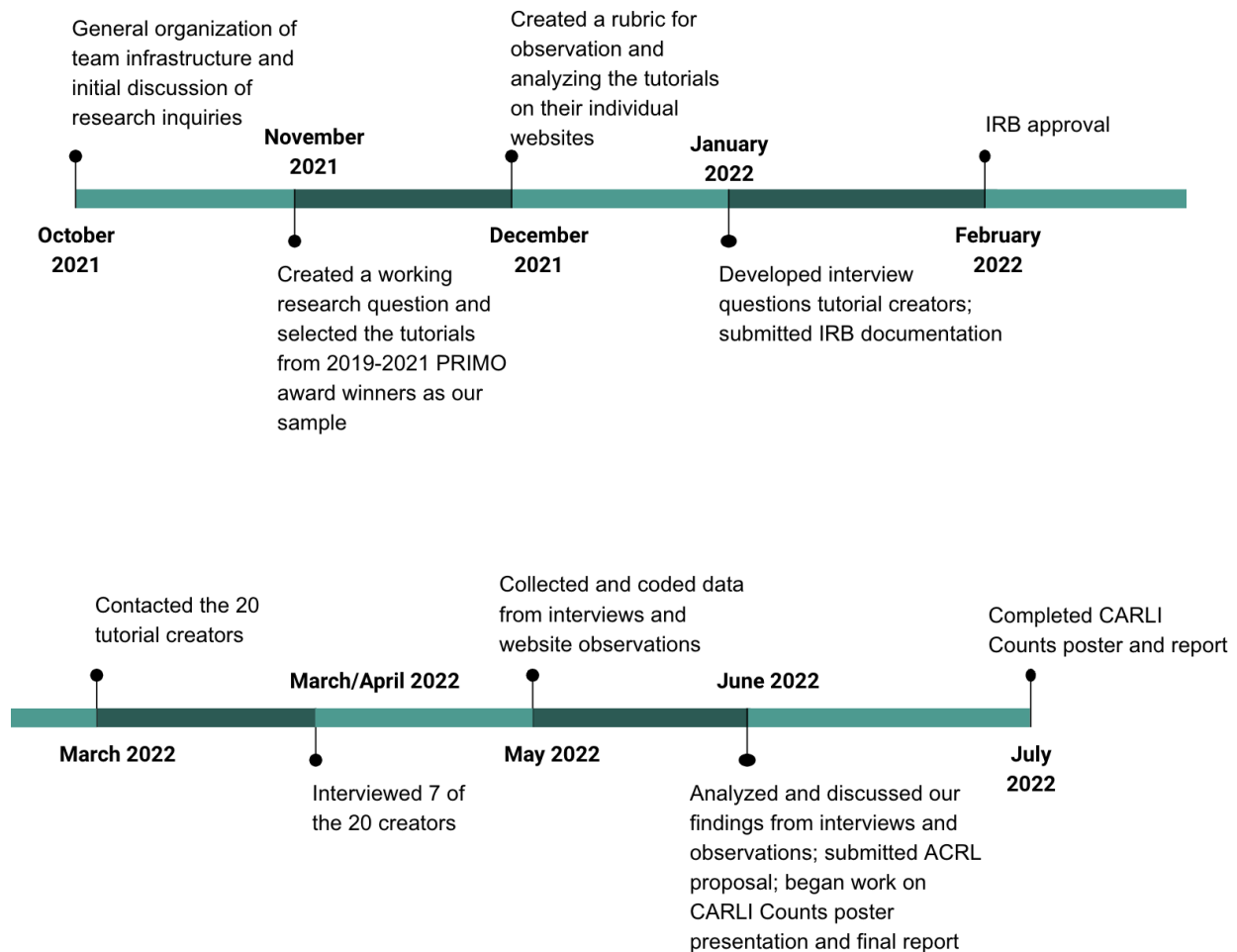
Our exploration has raised many interesting questions that could serve as rich areas for future research. A small sample of our questions include:

- Workload/lack of staff was cited as one reason to create tutorials. Are tutorials effectively substituting for direct librarian intervention? How much time is being spent to create tutorials, and is this time well spent? What workload is required

for review and maintenance of the tutorial after creation, and how are librarians planning for that time?
- The tools tutorial creators selected varied widely. What are librarians looking for in tools to create tutorials? Did they feel the tools used met their needs? What features, functions, or policies do librarians wish current tools had? What preparation do librarians need to effectively make use of tools, and how are they getting that preparation?
- Some of these tutorials were posted in an LMS repository. Is this an effective means for encouraging use? Are librarians communicating that the tutorials are in the LMS, or are classroom faculty discovering them independently? What metadata and/or descriptions are librarians providing in the LMS to entice faculty to use them?
- Frequently, tutorials were used as part of class assignments. Does using a tutorial as an assignment (versus an optional activity) improve student learning? Who is setting the parameters for the assignment (weight, timeline, directions provided, etc.)? Is it done by the classroom faculty alone, the librarian alone, or is it a collaboration? Does the weight given to the assignment impact participation, outcome, or learning?
- We heard little mention of classroom faculty being involved in tutorial creation, despite the fact that most of the later marketing and dissemination was targeted to faculty. How often do librarians consult with classroom faculty during the creation of a tutorial? What discussions occur about how tutorials could be used in the classroom or as assignments? How do classroom faculty feel about existing tutorials? What do classroom faculty think would make a tutorial an effective tool in their courses?
- While students were mentioned as part of the motivation for creation, they were not mentioned as playing a role in the design process. Under what circumstances do librarians involve students in tutorial creation, review, or maintenance? Who do librarians want to appeal to with tutorials: students, faculty, other stakeholders? How do students feel about using library tutorials? What do students think would make an effective tutorial? What entices students to use and perform well on a tutorial?

Timeline

General organization of team infrastructure and initial discussion of research inquiries

Created a rubric for observation and analyzing the tutorials on their individual websites

IRB approval

November 2021

January 2022

October 2021

December 2021

February 2022

Created a working research question and selected the tutorials from 2019-2021 PRIMO award winners as our sample

Developed interview questions tutorial creators; submitted IRB documentation

Contacted the 20 tutorial creators

Collected and coded data from interviews and website observations

Completed CARLI Counts poster and report

March/April 2022

June 2022

March 2022

May 2022

July 2022

Interviewed 7 of the 20 creators

Analyzed and discussed our findings from interviews and observations; submitted ACRL proposal; began work on CARLI Counts poster presentation and final report

Bibliography

Bowles-Terry, Hensley, M., & Hinchliffe, L. (2010). Best Practices for Online Video Tutorials: A Study of Student Preferences and Understanding. *Communications in Information Literacy*, 4(1), 17–28. https://doi.org/10.15760/comminfolit.2010.4.1.86

Fontane, W. M. (2017). Video tutorials revisited: The relationship between their use and library assessment quiz scores. *College & Undergraduate Libraries*, 24(1), 90-102. DOI: 10.1080/10691316.2015.1135093

Hanrath, Scott, and Miloche Kottman. "Use and Usability of a Discovery Tool in an Academic Library." J*ournal of web librarianship* 9, no. 1 (2015): 1–21.

Matlin, & Lantzy, T. (2017). Maintaining quality while expanding our reach: Using online information literacy tutorials in the sciences and health sciences. *Evidence Based Library and Information Practice*, 12(3), 95–113. https://doi.org/10.18438/B8ZD3Q

Ochoa, Isabel Vargas. (2020). Navigation Design and Library Terminology Findings from a User-Centered Usability Study on a Library Website. *Information Technology and Libraries*, 39(4). https://doi.org/10.6017/ital.v39i4.12123

Turner, Nancy B. "Librarians Do It Differently: Comparative Usability Testing with Students and Library Staff." *Journal of web librarianship* 5, no. 4 (2011): 286–298.

Appendix 1

Tutorial Placement Interview Questions

Need:

This first question is about the need for the tutorial and is in 3 parts. First, what was the initial impulse for the creation of this tutorial? Second, who was your intended audience? Finally, could you add any more about any discussions, policies, or processes that shaped those decisions?

Creation:

This question is about actually creating the tutorial and has 2 parts. First, what tools and technology did you utilize in creating this tutorial? Secondly, could you add any more about any discussions, policies, or processes that shaped those decisions?

Physical Placement:

This question is about the physical placement of the tutorial, and is in two parts. We want to make sure we're aware of all public links, as well as any internal or password protected placements available to users. Specifically, where is this tutorial placed or made available that you know of? Secondly, could you add any more about any discussions, policies, or processes that shaped those decisions?

Discovery:

This question is about other steps you took to make the tutorial as discoverable as possible to users and is in 2 parts. Beyond physical placement, what choices did you make to encourage user discovery of this tutorial? Secondly, could you add any more about any discussions, policies, or processes that shaped those decisions?

Feedback:

This question is about how you get feedback on your tutorial's effectiveness and is in 2 parts. What mechanisms, if any, are built in to elicit feedback or collect data? Secondly, could you add more about any discussions, policies, or processes that shaped those decisions?

Final question:

What else would you like us to know about the planning and sharing of this tutorial?

Appendix 2.

Coding Grid for Interviews

Master interview coding grid .XLSX

File Edit View Insert Format Data Tools Help   Last edit was made 5 days ago by anonymous

A1   fx   Terms

	Terms	Interview Question	Type	D	E	F
1	**Terms**	**Interview Question**	**Type**			
2	Faculty requested	Need	Purpose/Goal			
3	Departmental partnership	Need	Purpose/Goal			
4	Gen. informational literacy	Need	Purpose/Goal	1		1
5	Campus initiative	Need	Purpose/Goal		1	
6	In response to study/assessment	Need	Purpose/Goal	1	1	
7	Library-Wide Discussion	Need	Purpose/Goal	1		
8	Professional development/ library developmer	Need	Purpose/Goal		1	
9	Individual	Need	Initiator		1	
10	Within library	Need	Initiator	1		
11	External to library	Need	Initiator			1
12	Increasing # of classes	Need	External Pressure			
13	Library staffing/workload	Need	External Pressure	1		
14	Pandemic	Need	External Pressure			
15	First year	Need	Audience	1		
16	Post-first-year	Need	Audience	1		1
17	Specific discipline	Need	Audience			
18	Undergraduate Students	Need	Audience	1		
19	Transfer students	Need	Audience	1		1
20	LibGuides	Creation	Products/Tools	1		
21	LMS	Creation	Products/Tools	1	1	
22	Camtasia	Creation	Products/Tools	1		1
23	Articulate	Creation	Products/Tools	1		
24	YouTube	Creation	Products/Tools	1		

Appendix 3.
Physical Observations of Placement Grid

Tutorial Name/Website	Library Website: tutorial or link to tutorial							
	Front Page (if so note, Direct Link or Link to a Tutorials Page)		Research Tips/Help Dedicated Page	Libguides Links Page	Tutorials Dedicated Page	Other Name	Specific Libguide(s)[please note]	NOTES
What's Behind a Web Search? Bias and Algorithms URL: https://jmu.libwizard.com/f/algorithms-bias						libraries news page:		linked through lib news page,, but 2/3 pp in bc by date
Information Neighborhoods: Interacting with Online News Like a Good Neighbor						library blog		library blog is part of collection of UD blogs
Thinking Like a Scientist								Did find a psychology focused version of this tutorial on a psychology course guide, but don't see any links to this 05LA version anywhere
lateral reading--tessa whitthorn	1				1	1	1	Media & News Literacy libguide; blog post; link to a "Tutorials" page on Library homepage (under Research), needed to scroll 1/3 way down Tutorials page to get a 1 link to Lateral Reading
library research tutorials julie hartwell					1			
reading scholarly articles hess	1	1 - link to tutorials libguide		1				
advanced search tips aguilar	1	1-direct link						
	3		0	1	2	1	1	