INCLUSIVE OR HARMFUL?
A Critical Content Analysis of Tutorial Offerings from R1 Academic Libraries

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INTRODUCTION

Academic libraries frequently utilize online tutorials to meet student and instructor needs and adapt to expanding remote learning environments. Offering accessible and inclusive tutorials should be the bare minimum, yet, as suggested in Clossen and Proces[1] and Clossen,[2] tutorials inconsistently meet the basic requirements to be considered functionally accessible for all users. As shown by Roth and Turnbow,[3] merely following Universal Design for Learning principles is not enough to offer truly inclusive tutorial content. Additionally, best practices tend to focus on technical suggestions and overlook critical content and pedagogical considerations. There is little guidance for creating holistically inclusive tutorials and hardly any standards for avoiding deficit thinking, which decenters students' prior knowledge and experiences and perpetuates harmful assumptions, particularly about marginalized students.[4]

In this paper, we share preliminary findings from a two-phased mixed-methods content analysis of the tutorials created and offered by academic libraries at R1 institutions. The purpose of this study is to gain insight into what types of tutorials are offered by these institutions as well as whether they utilize inclusive teaching approaches. Additionally, the paper shares recommendations for creating tutorials based on the findings.

LITERATURE REVIEW

Online education and distance learning have become an increasingly common part of higher education. In fall 2020, in part due to the coronavirus pandemic, 75% of all undergraduate students were taking at least one distance learning course.[5] Even before the pandemic, libraries devoted full-time positions and other resources to embed themselves within online courses and create online learning materials such as video tutorials.

Meanwhile, educators in higher education often default to the deficit mindset when creating learning experiences for students in and out of the classroom, which discusses students as monolithic groups that require mediation and "ignores students' cultural strengths, devalues students' lived experiences, and falsely validates a negative perception of students' families and/ or communities."[6] This is particularly true for the groups of students whose populations within our institutions are growing, such as first-generation students; as noted by Ilett, "LIS researchers have tended to treat first-generation students as a vaguely defined but persistent problem rather

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than as full contributors to scholarly work, campus culture, and higher education generally."[7] Deficit approaches are rooted in the goal to erase cultural practices in favor of the culture of "superior" mainstream groups and oppress marginalized groups.[8] While this dynamic is damaging to all students, it impacts students of color, low-income students, first-generation students, students with disabilities, and neurodivergent students in particular.

While there are many sources for creating video tutorials that share student preferences,[9] best practices,[10] and overall availability,[11] there is minimal research that explores how to create inclusive learning objects that support our increasingly diverse student populations. An exception to this lack of literature are studies focused on captioning, which is useful for all viewers and learners. Closson and Proces shared that captions support "people with hearing loss," people who are viewing videos without sound, and multi-language learners.[12] When assessing the accessibility of vendor-generated video tutorials, Oud found that 59% of vendors did not offer usable captions for their videos and 50% of vendors offered tutorials that weren't compatible with screen-reading software.[13] When investigating the tutorial content of R1 universities, Closson and Proces found that captions were so riddled with inaccuracies due to YouTube's automatic captioning that ultimately only about 52% of tutorials could be considered captioned.[14] Captions in open captioned videos also had issues including not syncing properly with the script, egregious misspelling, and even being used to make additional points not stated in the video at all.[15] They expressed that "libraries are not creating or using accessible content. This is unfair to disabled users and may even put institutions at risk for litigation."[16]

In addition to the research on whether libraries meet standard accessibility requirements, Closson and others have called to move beyond requirements and towards more holistically inclusive work. In 2014, Closson shared a series of questions for digital creators in order to "bring tutorial creation forward in a way that benefits both those of differing abilities, as well as more "traditional" users."[17] In a poster presentation, Mann shared strategies for translating inclusive teaching practices into asynchronous online learning objects and recommended "recasting all examples and questions to feature gender neutral language, deliberately centering my examples around diverse scholars, and using the audiovisual affordances of the tutorial format to make these representations visual and aural as well as textual."[18] Finally, Roth and Turnbow investigated how well tutorials "provide culturally relevant examples"[19] and found that learners noticed and valued diverse representations in a given tutorial and craved additional diverse representation.

Recent literature has examined the ways that library educators perpetuate the deficit mindset,[20] and library tutorials may follow similar patterns. Heinbach, Mitola, and Rinto have created principles and practices to work against the deficit mindset. They posit that educators should commit to honor prior knowledge, create opportunities for genuine engagement, center social interaction and community knowledge, decenter classroom learning, and work against systems of educational oppression.[21] Otherwise, "students may internalize instructors' dismissal or the frustration they feel when they attempt to participate in a cultural context in which the expectations remain tacit and subsequently question their belonging, resulting in feelings of alienation, imposterism, and isolation."[22] Amanda Folk argues that information literacy as articulated by the ACRL Framework is a type of academic cultural capital that "articulate(s) the ways in which students are expected to think like emerging scholars" and encourages librarians to "consider the cultural context in which these modes of thinking are valued and enacted, including the situated practices in which students must demonstrate them, and consider the ways in which these situated practices may alienate or isolate particular student populations."[23]

While deficit thinking may be most prevalent in day-to-day classroom contexts, tutorial creation is a place where instruction can often be didactic in nature, possibly asking students to conform to cultural contexts. These didactic approaches could alienate or isolate learners, which can be especially dangerous when those from marginalized groups are expected to conform and have to prove "how well [they can] become clones of [their] peers."[24]

METHODS

In this mixed-methods research study, we conducted a content analysis of video tutorials from R1 academic libraries in the United States. Through this research, we intend to address the following research questions:
- What types of tutorials are created by academic libraries at R1 institutions?

- How inclusive are library tutorials created by academic libraries at R1 institutions?

We selected content analysis due to its ability to be utilized both qualitatively and quantitatively[25] in order to reveal trends or themes in messaging.[26] This method was also appealing due to its ability to be replicated by other researchers.[27] To establish an understanding of what tutorials are offered by a large number of R1 institutions, we gathered 956 tutorials from 58 institutions and recorded data on their educational content. We then narrowed the scope of our data to video tutorials and conducted qualitative content analysis and critical message analysis in order to gain deeper insight into whether tutorials incorporated inclusive characteristics such as accessibility, inclusion, and anti-deficit practices.

What Types of Tutorials are Created by Academic Libraries at R1 Institutions?

To determine what types of tutorials academic libraries are providing, we developed a shared definition of tutorials and additional exclusion criteria. As we all primarily teach general education courses, we focused on general education tutorials that succinctly teach research skills and concepts. We excluded tutorials that required more than 20 minutes to complete, were created for a faculty audience, or were made by an institution other than the one sharing them. We also excluded LibGuides and tutorials focused on how to utilize technology or tools available in the library.

We then consulted the Carnegie Classifications of Institutions of Higher Education and pulled a random representative sample of 58 institutions at a 95% confidence level and 10% standard error (SE) of the 146 doctoral universities with "very high research activity", also known as R1 research institutions.[28] Each researcher was assigned a list of R1 institutions to code individually, ensuring overlap between institutions for intercoder reliability.[29] We first looked at the library's website to see if a tutorials page was easily findable; if it was not, we searched the website for the terms tutorial, tutorials, video, and videos. Details of tutorials that met our definition of general education were then recorded in a Qualtrics form, including tutorial name, URL, and type of educational content covered, allowing for double codes in instances when a tutorial addressed more than one theme. Final codes for content type included: outreach, topic and question development, evaluation, information types, academic integrity as a concept, academic integrity how-to, the research process, general search strategies, how to create academic artifacts, publishing, and researcher identity (see table 1). Researchers flagged any codes they were unsure of for group discussion.

TABLE 1			
Codes for content types			
Code	**Content Type**	**Description**	**Examples**
1	Outreach	Tutorial is focused on general information about available library services, spaces, resources, and tech that excludes specific "how-tos" but instead focuses on informing students about, or building awareness of, available *XYZ* to encourage use. Excludes merely visual representations or 360° tours of library spaces or locations.	Welcome to the Libraries, Library Orientation, general library information, including information on library departments, spaces, and services
2	Topic and Question Development	Tutorial is focused on processes and practices related to research topics and research question development.	Brainstorming Research Ideas, Narrowing or Broadening a Research Question, Appropriately Scoping or Scaling Your Research
3	Evaluation	Tutorial is focused on evaluating sources or evaluation techniques.	How to Analyze Academic and Open Web Sources, Assessing Validity of Scholarly Resources, Lateral Reading

TABLE 1			
Codes for content types			
Code	**Content Type**	**Description**	**Examples**
4	Information Types	Tutorial is focused on the different types of information and sources. This can include tutorials designed to cover searching for and choosing specific types of information.	Popular vs. Scholarly Sources, Finding Primary Sources, What is a Scholarly Article?
5	Academic Integrity as a Concept	Tutorial is focused on the concept of academic integrity.	Why Citation Matters, How to Spot Plagiarism, Citation as an Anti-Racist Act
6	Academic Integrity How-To	Tutorial is focused on how to actively practice or ensure academic integrity.	How to Cite, Applying style guides (ex. MLA, APA, Chicago), In-Text Citations
7	The Research Process	Tutorial is focused on elements involved in the research process.	Steps of the Research Process, Demystifying the Research Process
8	General Search Strategies	Tutorial is focused generally on how to search in any database, rather than a specific one. Library discovery tools are also included in this theme even though the tutorial itself may present as specific to students at a specific institution (ex. "How to use UNLV Libraries' Quick Search")	Boolean Operators, Finding Scholarly Articles or Journals, Developing or Using Keywords, Advanced Search Strategies, Refining Your Search (not to be conflated with Refining a Research Question–see Included Code 2), Using the library's discovery tool
9	How to Create Academic Artifacts	Tutorial is focused on the planning, development, and/or creation of academic artifacts and deliverables.	How to Write a Literature Review, Annotated Bibliographies, Creating Data Management Plans
10	Publishing	Tutorial is focused on elements related to the publication of materials.	Copyright, Fair Use, Licensing and Creative Commons
11	Researcher Identity	Tutorial is focused on the elements that together identify a researcher (ex. common practices or numeric ids). This theme also includes content related to measuring and monitoring the reach and impact of research.	ORCID, Google Scholar profiles, metrics and altmetrics

In total, 956 tutorials that met the study's definition of tutorial were found across 58 institutions. 600 of these were removed due to exclusion criteria, which yielded 341 tutorials for further study.

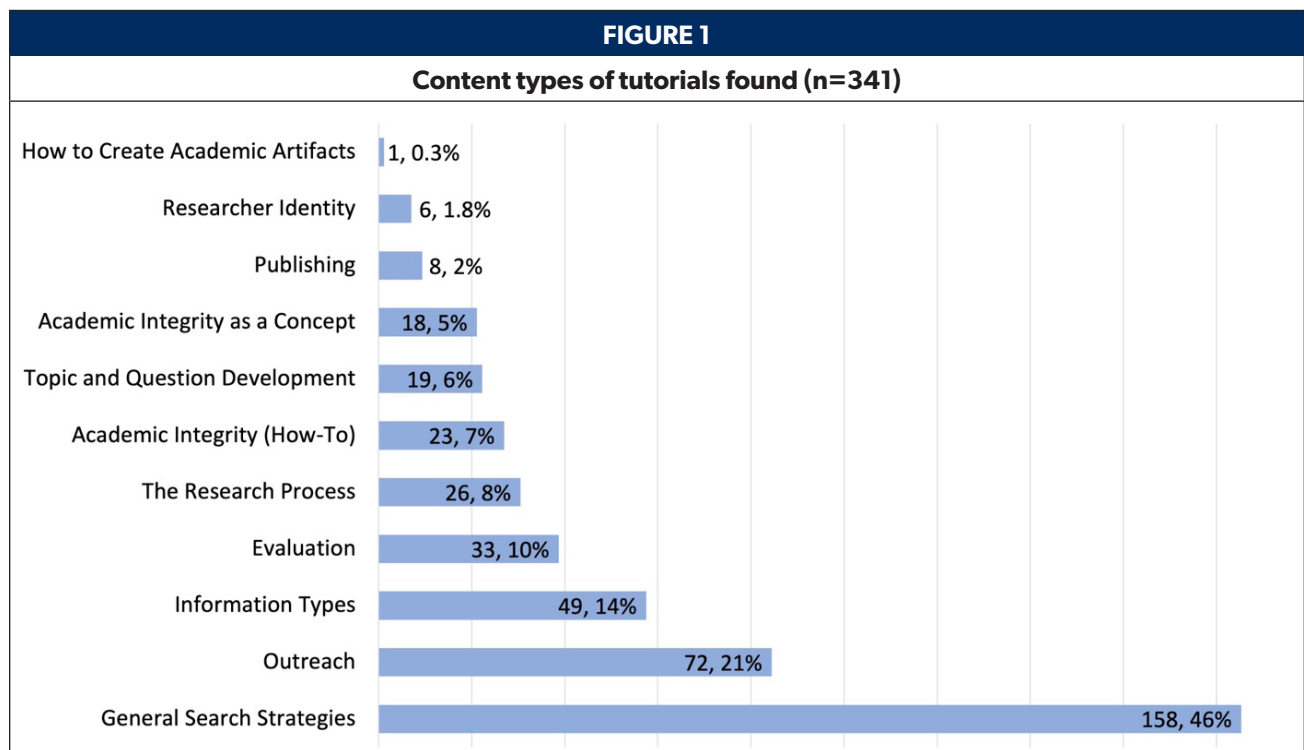## How Inclusive are Library Tutorials Created by Academic Libraries at R1 Institutions?

To determine how inclusive general education tutorials created by libraries are, we further narrowed our inclusion criteria to focus only on video tutorials, which allowed for more in-depth, consistent comparison. We picked a representative random sample of tutorials from the overall data for further analysis; at 95% confidence and 10% SE, this resulted in 76 tutorials. We assigned tutorials to each coder, ensuring overlap for intercoder reliability. We watched our assigned tutorials and coded them using a Qualtrics form that had undergone multiple rounds of norming. Any uncertainty or discrepancies between coders were discussed as a group until consensus was reached. This form recorded data in four categories: *General Tutorial Details*, *Accessibility*, *Inclusion*, and *Deficit Thinking*.

General Tutorial Details recorded standard elements of a video tutorial such as title, URL, year uploaded, host website, and runtime, as well as elements aligned with generally recommended teaching practices, such as presenting a clear purpose and offering bookmarks in the content.[30] Tutorials were determined to have a clearly stated purpose if they began with an outline explicitly stating the purpose within the first 4-5 sentences of the script. The title of the video was not considered. We captured bookmarking features such as nested chapters or timecodes listed in the video description or transcript; both of these break down a longer video into more digestible parts and empower learners to toggle between specific content points.[31] We also recorded evidence of CC licenses that appeared directly in the video tutorial, on the library website, and on media platforms.

Accessibility recorded information about captions and transcripts and sought to build upon the findings of Clossen and Proces.[32] We recorded whether captions were (a) present or (b) not present. For tutorials with captions, we recorded if they (a) applied punctuation, (b) were synchronized with the narration, and (c) if they seemed edited in that they were relatively free of grammatical errors. We also recorded the presence of transcripts, or documents that present the text of speech and non-speech messaging in a video. We included transcripts that were clearly affiliated with a video tutorial, such as a downloadable document or embedded within the media player, as well as transcripts included in a tutorial's description.

Audio description, or additional audio that describes "aspects of the video that are purely visual and not accessible to people who are blind or visually-impaired,"[33] are an important and often overlooked accessibility tool. We first recorded whether tutorials contained visual information that was integral to learning that was not clearly stated in the script, and then recorded whether those tutorials offered audio description.

To assess *Inclusion*, we recorded instances of visual representation that challenge the majority culture of an academic environment. We categorized "majority culture" as: white, patriarchal, heteronormative, able-bodied, and cisgendered. We captured whether videos contained characters, and whether those characters were depicted as non-humans (e.g. animals), animated humans, or real, live humans. After identifying the tutorials that contained humans, we recorded any visual representation in the video that pushed against the majority culture utilizing a shared taxonomy. For example, if a tutorial contained characters with a visible disability, we coded the tutorial as pushing against able-bodied majority with the note—"visible disability."

FIGURE 1

Content types of tutorials found (n=341)

Content type	Count, Percent
How to Create Academic Artifacts	1, 0.3%
Researcher Identity	6, 1.8%
Publishing	8, 2%
Academic Integrity as a Concept	18, 5%
Topic and Question Development	19, 6%
Academic Integrity (How-To)	23, 7%
The Research Process	26, 8%
Evaluation	33, 10%
Information Types	49, 14%
Outreach	72, 21%
General Search Strategies	158, 46%

Lastly, *Deficit Thinking* recorded instances of deficit thinking or anti-deficit thinking principles in the tutorial content. We coded for content that perpetuated the deficit mindset by explicitly stating negative assumptions about student intentions or behaviors, as well as content that incorporated anti-deficit strategies such as acknowledging how prior knowledge might connect to the concept being taught, acknowledging that research skills are often utilized in everyday life, highlighting the importance of community learning, or critiquing academia-based knowledge making in any way.

INITIAL FINDINGS

## What Types of Tutorials are Created by Academic Libraries at R1 Institutions?

Of the tutorials assessed, 158 (46%) taught general search strategies; 72 (21%) covered outreach; 49 (14%) taught information types; 33 (10%) taught evaluation; 26 (8%) taught the research process; 23 (7%) taught academic integrity (how-to); 19 (6%) taught topic and question development; 18 (5%) taught academic integrity as a concept; 8 (2%) discussed publishing; 6 (1.8%) discussed researcher identity; and 1 (0.3%) taught how to create academic artifacts. Note: tutorials could be coded for multiple types.

How Inclusive are Library Tutorials Created by Academic Libraries at R1 Institutions?

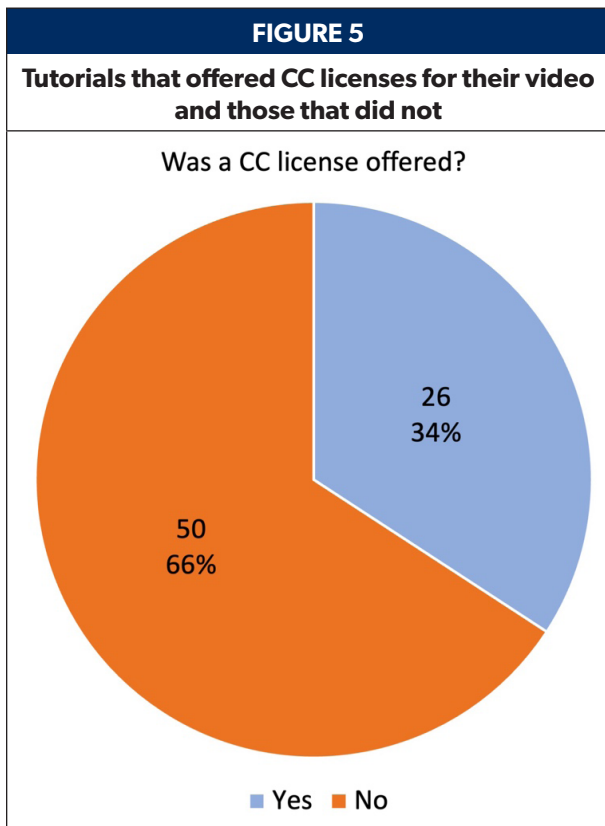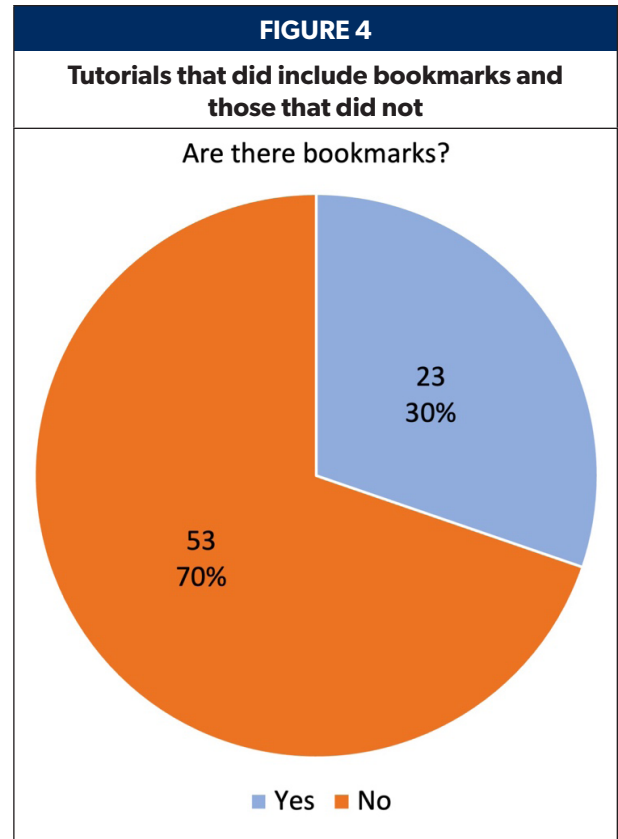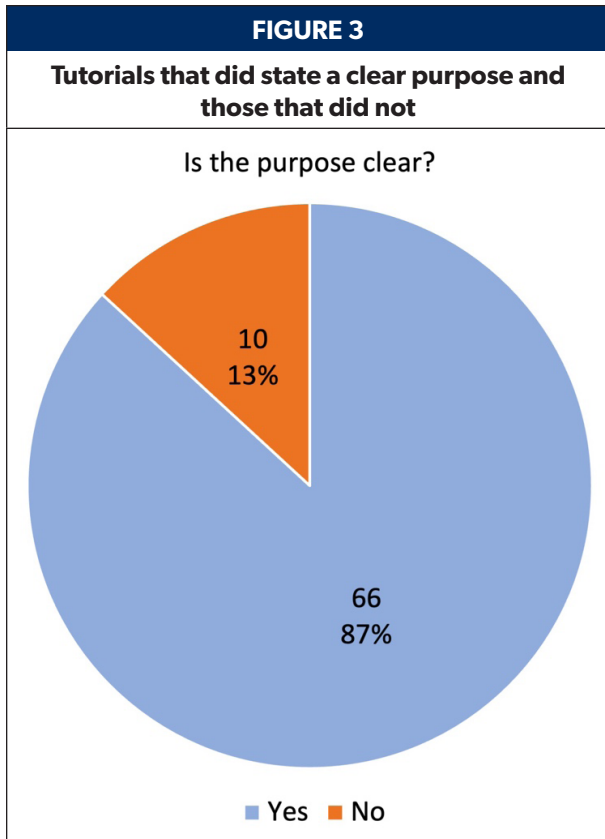Best practices and general tutorial details

Average runtime. The average runtime of the tutorials from the sample size came to three minutes and 30 seconds. This included tutorials that were as short as a minute and a half to tutorials that ran for as long as 7-15 minutes.

When were tutorials published? The tutorials analyzed were uploaded between 2013-2022, though 3 out of the 76 coded did not have a clearly listed upload date.

FIGURE 2

Years that tutorials were uploaded (count and percentage, n=76)
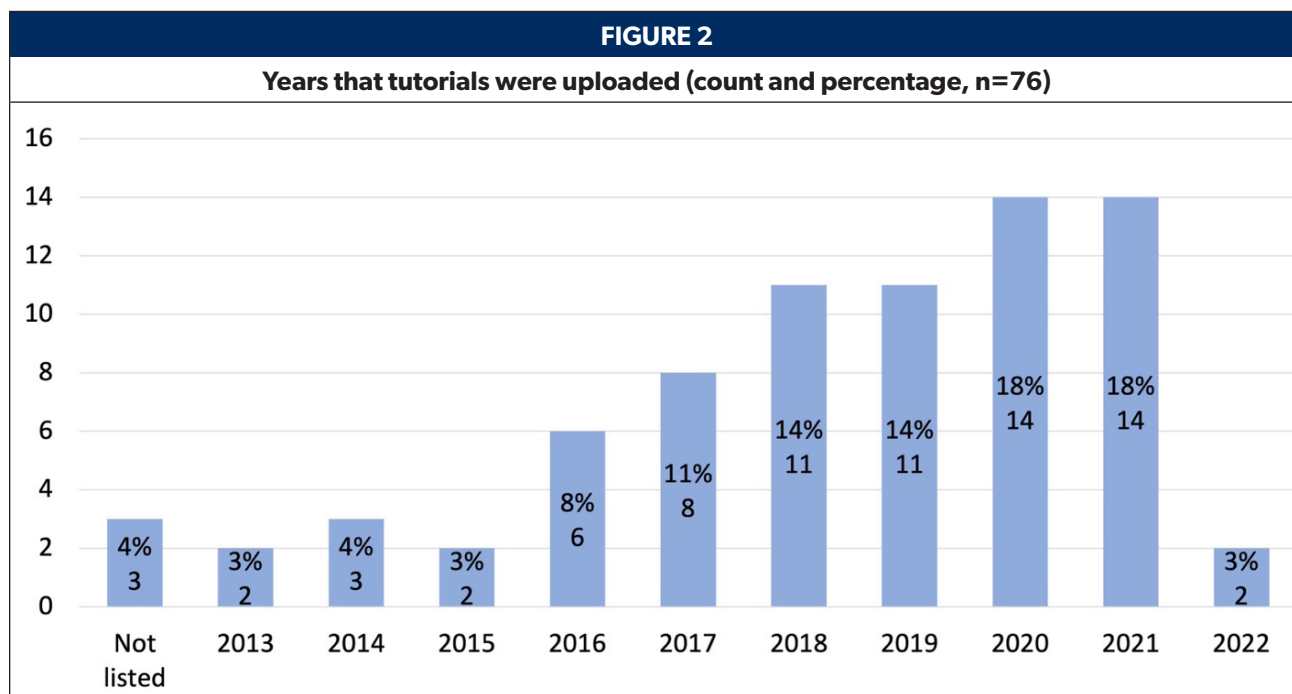
Is the purpose clearly stated for the learner? Of the 76 tutorials, most (87%) began with a clear purpose.

FIGURE 3

Tutorials that did state a clear purpose and those that did not

Is the purpose clear?

10
13%

66
87%

■ Yes ■ No

FIGURE 4

Tutorials that did include bookmarks and those that did not

Are there bookmarks?

23
30%

53
70%

■ Yes ■ No

FIGURE 5

Tutorials that offered CC licenses for their video and those that did not

Was a CC license offered?

26
34%

50
66%

■ Yes ■ No

Are bookmarks offered? We found that 70% of the tutorials coded did not incorporate bookmarks.
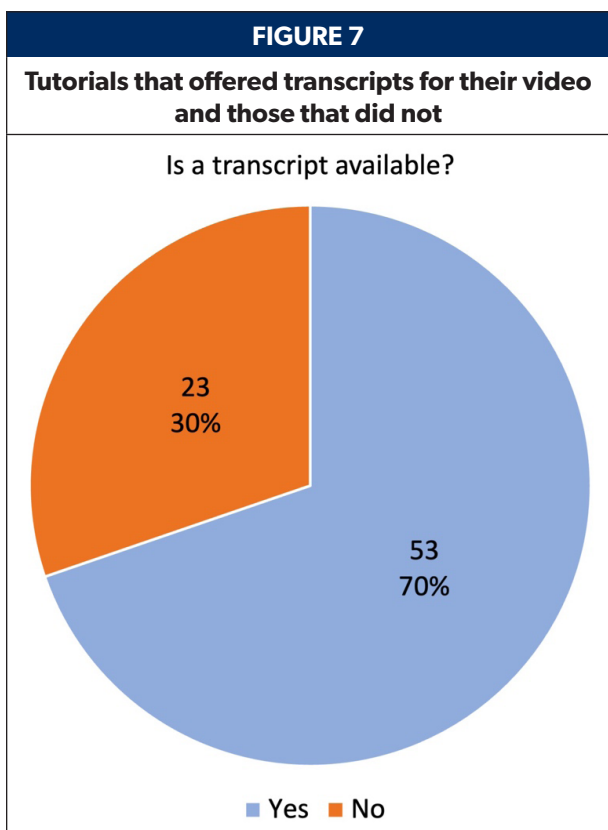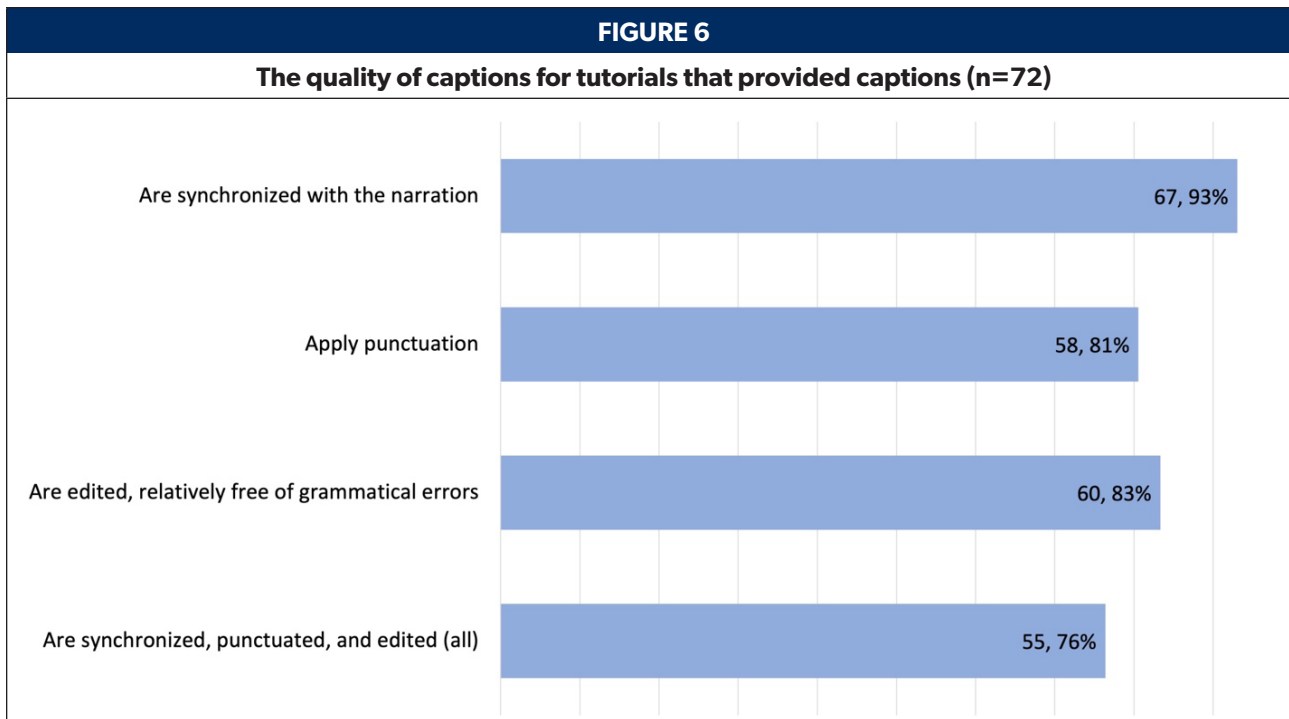
Does it have a clearly visible Creative Commons license? Most of the video tutorials (66%) did not present a CC license that clarified sharing preferences or rights.

Accessibility

Captions. The majority of the video tutorials offered captions (95%) with a small margin (5%) offering no captions or unusable captions. Of the tutorials that had captions, 67 had synchronized captions (93%), 58 applied punctuation (81%), 60 appeared edited (83%), and 55 applied all of the elements (76%)–these captions were synchronized, punctuated, and edited, i.e. acceptable captions for accessibility.

Are there transcripts? We found that more than half (70%) of the video tutorials offered text-based transcripts.

Audio description. While 35 of the 76 tutorials were determined to have visual learning material that was not audibly explained to the learner, there were no instances of audio description provided. We found that 54% of the tutorials effectively narrated all visual learning material whereas 46% featured visual learning material without accompanying narration, which would exclude people who are blind or visually-impaired without the availability of audio description.

FIGURE 6

The quality of captions for tutorials that provided captions (n=72)

Are synchronized with the narration	67, 93%
Apply punctuation	58, 81%
Are edited, relatively free of grammatical errors	60, 83%
Are synchronized, punctuated, and edited (all)	55, 76%

FIGURE 7

Tutorials that offered transcripts for their video and those that did not

Is a transcript available?

23
30%

53
70%

■ Yes ■ No

Inclusion

Out of the 76 tutorials, 25 (33%) contained no characters at all, leaving 51 (67%) of the remaining tutorials depicting at least one type of character representation. From the selection of 51 tutorials that offered visual character representation, 7 depicted non-human characters (14%), 29 depicted animated human characters (57%), 28 presented real humans (55%), and 9 featured both animated characters and real human subjects (18%).

Of the 51 tutorials that offered visual character representation, 25 presented representation that pushed against a white cultural majority (49%), 11 pushed against a patriarchal cultural majority (22%), 1 pushed against a heteronormative cultural majority (2%), and 1 pushed against a cisgendered cultural majority (2%).

Deficit thinking

We found that a nominal number of tutorials imposed deficit thinking by stating negative assumptions about student intentions, behaviors, or previous experiences (3 out of 76, or 4%). Conversely, there were also few instances of tutorial content that explicitly applied anti-deficit thinking principles; 2 out of 76 contained content that decentered classroom learning (3%), and 6 out of 76 tutorials contained content that honored prior knowledge (8%). We did not find any instances of content that centered social interaction and community knowledge; decentered classroom learning; or worked against systems of educational oppression.

DISCUSSION

Initial findings from this mixed-methods content analysis presented a baseline understanding of video tutorial offerings and the current state of inclusivity in video tutorial content created by R1 academic libraries.

Types of Tutorials

General search strategies tutorials were by far the most popular and contained information on boolean operators, finding scholarly articles, developing and utilizing keywords, and refining a search. Outreach tutorials that built awareness around library services, spaces, resources, and technology were the second most created tutorials. Information types tutorials covering topics such as popular versus scholarly sources, finding primary sources, or what is a scholarly article were also consistently found. These tutorial types offer opportunities to implement diverse examples for searching, show diverse users in library spaces utilizing library resources, and complicate the oft-perpetuated idea that scholarly articles are always the ideal choice when seeking information, though our analysis did not find many instances of these actions.

General Tutorial Details

Of the 73 videos for which we were able to find a publication date, more than a third (38%, or 28 out of 73 tutorials) were first available between 2020-2021. This segment of video tutorials could potentially be a response to distance learning during the coronavirus pandemic. The years 2018-2019 provided the next largest count of uploaded video tutorials at 30% of the sample, or 22 out of 73 tutorials, demonstrating that this was a priority even before the pandemic. The two oldest tutorials from the included sample were uploaded in 2013–nearly a decade before this paper's publication. While the majority of video tutorials analyzed were first available within the past five years, it is important for academic libraries to assess their video tutorials for relevance and currency. A study investigating significant differences in video content based on year of publication would be helpful in determining how frequently tutorials should be updated.

Accessibility

We found that of our 76 video tutorials, the majority (95%) offered some kind of captions. 76% of the video tutorials were determined to offer acceptable captions, meaning captions were accurate to the narration and synchronized, an increase from the 52% noted in the Closen and Proces study. This demonstrates that video tutorials created by academic libraries have improved in offering consistent and accurate captioning, which is encouraging.

Another area of improvement is with transcripts. Where Closen and Proces found no transcripts, the present study encountered transcripts for 70% of tutorials reviewed.[34] However, they were inconsistently shared. For instance, transcripts might be available on the host-website (like a library website or YouTube), but not other places where the video was available for viewing (like a LibGuide). It is important to note that we did include YouTube transcripts, which is a newer feature, which likely accounts for some of the increase in transcript-availability since the Closen and Proces study. Additionally, there was no distinction made between transcripts automatically generated from captions on YouTube and those created by library workers. Thus, this improvement of transcript usage should be observed loosely and future, in-depth study should be considered.

Transcripts are necessary for video tutorials, especially when there is learning material that is presented visually but not audibly narrated. Unless there is also audio description, presenting learning content visually without narration or without an accessible transcript document makes the tutorial inaccessible. Since no instances of audio description were found, it is vital to provide descriptive transcripts.

Inclusion

Data captured in this study revealed that if human characters were represented at all in the videos, animated characters appeared slightly more often (75%) than real human characters (73%). Non-white characters, 25

(49%) of the tutorials, and female-presenting characters in a position of authority (excluding feminized professions like librarianship), 11 (22%), offered the most consistent examples of pushing against majority culture. We noted that some tutorials included animated human characters with non-human skin colors (e.g. orange, purple, green) and considered how this could be a way of opting out of presenting diverse representation, leaning further away from inclusion than towards it. Overall, a more nuanced understanding of the state of visual representation in video tutorials requires its own study.

Deficit Thinking

We chose principles well-suited to video tutorials from "A Guide to Dismantling Deficit Thinking" to direct our data collection.[35]

The application of anti-deficit principles, while minor, included content that honored students' prior knowledge (6 or 8%) and decentered classroom learning (2 or 3%). Inversely, when there were explicit instances of deficit thinking, they arose from negative assumptions about students and plagiarism, their understanding of source types, and their citation usage. Librarians at West Virginia University Libraries offer an example of how to amend deficit thinking in tutorial content when they revised their plagiarism tutorial from framing students as potential criminals and replaced accusatory language with a narrative that intends to assist and support students in understanding how to properly incorporate other people's ideas into their work.[36] We feel there is additional opportunity for future study on how anti-deficit approaches can be applied to tutorials.

LIMITATIONS

A limitation we encountered early on was that content posted to library YouTube pages was unwieldy, unorganized, and filled with outdated content that was not educationally oriented. Tutorials that were behind paywalls or institutional logins were also not captured in this study. Additionally, varying platforms offered different types of information, and locating tutorials proved to be an inconsistent experience across R1 institutions. Though not part of our data collection and coding, the challenge of navigating library websites to a designated tutorials page or similar video tutorial resource collection was noted during continuous group discussions and ultimately informed our norming process, sample sizes, and definitions. Some data, like Creative Commons licensing, was not always easily located, as different video platforms could hide that information. Additionally, if a CC license was listed in one area, on a library's website for instance, it often wasn't listed elsewhere where the video was hosted, such as YouTube. We also noted that the upload date could not accurately reflect when a tutorial was first made available, as tutorials may be uploaded to new platforms over time.

Limiting the scope from all tutorials to video tutorials as we progressed to investigate research question two caused us to recognize trends in the first phase of research that were not supported in the second phase. For instance, we felt from our initial review of 341 tutorials for RQ1 that deficit thinking appeared at a significant rate in tutorials about citation and plagiarism; the final data, however, does not align with that observation because we ultimately viewed fewer videos on citation and plagiarism in that phase.

Another limitation is the subjective nature of some of the measures that were coded. One instance where this occurred was determining whether or not the purpose of a tutorial was clearly communicated in the beginning of a video; it was difficult for us to discern where our expertise made something obvious that student viewers might find unclear or confusing.

Finally, after consulting previous literature across disciplines about accurately and ethically recording body size, skin tone, skin shade, visible disabilities, and other aspects of visible representation, we ultimately made the decision to code human characters as either white or non-white, acknowledging that that folks can be white-passing and video tutorials ultimately do not offer sufficient context for determining race. Ethically and accurately recording details such as race, body size, and visual disabilities proved to be complex enough to warrant their own studies and fell outside the scope of this project.

RECOMMENDATIONS

Based on what we encountered through the duration of this project, we recommend the following practices when creating video tutorials to improve inclusion and accessibility in DLOs created by academic libraries. This list is not comprehensive and is meant to function as an addition to existing best practices and recommendations found elsewhere in the field:

- General Recommendations:
  - Consider discovery and website navigation at the design stage. Where will this tutorial be hosted and streamed? Can a student access this tutorial without direct guidance from a library worker? If not, perhaps it is time to reassess how your tutorials are presented on your website.
  - Revisit library YouTube channels or other publicly available video streaming or hosting platform profiles on an annual basis. We recommend you remove or archive content that is outdated, repetitive, or no longer in use. Implement an organization scheme, especially if you have videos intended for multiple audiences.
  - Whenever possible, include students in the video tutorial creation process. This will help ensure that content is approachable from a student perspective.
  - Accessibility:
  - At the design, scripting, and storyboarding stage, think about how vital learning material will be presented both visually and audibly in the tutorial. These aspects of the video content should match and not attempt to teach or express concurrent ideas. For example, a pop-up visual of a "Pro Tip" that appears in the middle of a video that does not align with what is actively being said is inaccessible to people who are blind or with low vision.
  - Provide captions that are synchronized with the narration, accurate to what is being narrated, and utilize punctuation and grammar. Use captions that can be turned on and off (closed captions). Do not use auto-generated captions without thorough editing.
  - Create transcripts in a web-accessible format or as accessible documents and ensure they are available in all places where your video tutorial could be accessed. For example, if you provide a transcript as a downloadable file on a main tutorials webpage, don't forget to also include the transcript on a LibGuide where the tutorial is embedded.
- Inclusion:
  - Think beyond racial diversity; what is the majority culture at your institution and how can you create a visual message that includes non-majority identities and experiences?
  - Avoid non-human skin colors for humans depicted as cartoon characters.
- Anti-deficit practices:
  - Be cautious of how information gaps are framed. Consider content as well as tone or delivery.
  - Consider ways the skills being taught can connect to skills or lived experiences outside of academia.
  - Encourage students to collaborate with others to construct meaning from the material being presented.
  - When relevant, don't be afraid to share limitations of the academic knowledge making processes.

CONCLUSION

This study built upon previous work to determine how accessible tutorials offered by academic libraries are and found that the field has improved in multiple ways. It also sought to investigate how inclusive tutorials are beyond captioning in terms of representing individuals who push back against the academic majority and in incorporating anti-deficit practices. Results indicate a continued need for library workers to improve in their efforts to create inclusive and accessible digital learning objects. If online learning objects such as tutorials are to be a central part of academic libraries' strategies for teaching information literacy to students, it is important that we create inclusive content that encourages students to see themselves as a part of the academic environment. We must ensure that we are as intentional about creating inclusive educational content in an online environment as we are for our in-person classes and outreach events.

ACKNOWLEDGEMENTS

NOTES

1. Amanda Clossen and Paul Proces, "Rating the Accessibility of Library Tutorials from Leading Research Universities," *Portal: Libraries and the Academy* 17, no. 4 (October 2017): 803–25, https://doi.org/10.1353/pla.2017.0047.
2. Amanda Clossen, "Beyond the Letter of the Law: Accessibility, Universal Design, and Human-Centered Design in Video Tutorials," *Pennsylvania Libraries* 2, no. 1 (2014): 27–37, https://doi.org/10.5195/PALRAP.2014.43.
3. Amanda Roth, Gayatri Singh, and Dominique Turnbow, "Equitable But Not Diverse: Universal Design for Learning is Not Enough," *In the Library with the Lead Pipe*, (May 26, 2021): 1-31.
4. Richard R Valencia, *The Evolution of Deficit Thinking: Educational Thought and Practice* (Bristol: Taylor & Francis, 1997).
5. "Fast Facts: Distance Learning," How Many Students Take Distance Learning Courses at the Postsecondary Level?, National Center for Education Statistics, accessed February 22, 2023. https://nces.ed.gov/FastFacts/display.asp?id=80
6. Chelsea Heinbach, Rosan Mitola, and Erin Rinto, *Dismantling Deficit Thinking in Academic Libraries*. (Sacramento: Library Juice Press, 2021), 16.
7. Darren Ilett, "A Critical Review of LIS Literature on First-Generation Students," *portal: Libraries and the Academy* 19, no. 1 (2019): 178, https://doi.org/10.1353/pla.2019.0009.
8. Django Paris, "Culturally Sustaining Pedagogy: A Needed Change in Stance, Terminology, and Practice," *Educational Researcher* 41, no. 3 (2012): 93, https://doi.org/10.1353/pla.2019.0009.
9. Catherine Lantz, Glenda M. Insua, Annie Armstrong, David Dror, and Tara Wood, ""I'm a Visual Learner so I Like This": Investigating Student and Faculty Tutorial Preferences," *Internet Reference Services Quarterly* 22, no. 4 (2017): 181-92, https://doi.org/10.1080/10875301.2018.1427171; Melissa Bowles-Terry, Merinda Kaye-Hensley, and Lisa J Hinchliffe, "Best Practices for Online Video Tutorials: A Study of Student Preferences and Understanding," *Communications in Information Literacy* 4, no. 1 (2010): 17-28, https://doi.org/10.15760/comminfolit.2010.4.1.86; Nichole A Martin and Ross Martin, "Would You Watch It? Creating Effective and Engaging Video Tutorials," *Journal of Library & Information Services in Distance Learning* 9, no. 1-2 (2015): 40-56, https://doi.org/10.1080/1533290X.2014.946345.
10. Thomas Weeks and Jennifer Putnam Davis, "Evaluating Best Practices for Video Tutorials: A Case Study," *Journal of Library & Information Services in Distance Learning* 11, no. 1-2 (2017): 183–95, https://doi.org/10.1080/1533290X.2016.1232048.
11. Eamon Tewell, "Video Tutorials in Academic Art Libraries: A Content Analysis and Review," *Art Documentation* 29, no. 2 (2010): 53–61, https://doi.org/10.1086/adx.29.2.27949554.
12. Clossen and Proces, "Rating the Accessibility," 815.
13. Joanne Oud, "Accessibility of Vendor-Created Database Tutorials for People with Disabilities," *Information Technology and Libraries* 35, no. 4 (2016): 13-14, https://doi.org/10.6017/ital.v35i4.9469.
14. Clossen and Proces, "Rating the Accessibility," 814.
15. Ibid.
16. Ibid, 823.
17. Clossen, "Beyond the Letter," 31.
18. Abigail Mann, "Promoting Inclusivity When No One's There: The Case With Online Tutorials" (poster, ACRL Distance & Online Learning Section Virtual Poster Session, August 25-29, 2022).
19. Amanda Roth, Gayatri Singh, and Dominique Turnbow, "Equitable But Not Diverse: Universal Design for Learning is Not Enough," *In the Library with the Lead Pipe*, (2021): 7.
20. Alison Hicks and Annemaree Lloyd, "Deconstructing Information Literacy Discourse: Peeling Back the Layers in Higher Education," *Journal of Librarianship and Information Science* 53, no. 4 (2020): 559-571, https://doi.org/10.1177/0961000620966027; Amanda Folk, "Drawing on Students' Funds of Knowledge: Using Identity and Lived Experience to Join the Conversation in Research Assignments," *Journal of Information Literacy* 12, no. 2 (2018): 44-59, https://doi.org/10.11645/12.2.2468; Chelsea Heinbach et al., "Dismantling Deficit Thinking: A Strengths-based Inquiry into the Experiences of Transfer Students In and Out of Academic Libraries," *In the Library with the Lead Pipe,* (2019); Eamon Tewell, "The Problem With Grit: Dismantling Deficit Thinking in Library Instruction," *portal: Libraries and the Academy* 20, no. 1 (2020): 137-159, https://doi.org/10.1353/pla.2020.0007; Heinbach, Mitola, and Rinto, *Dismantling Deficit Thinking in Academic Libraries;* Kim L. Morrison, "Informed Asset-Based Pedagogy: Coming Correct, Counter-stories from an Information Literacy Classroom," *Library Trends* 66, no. 2 (2017): 176-218, https://doi.org/10.1353/lib.2017.0034.
21. Heinbach, Mitola, and Rinto, *Dismantling Deficit Thinking in Academic Libraries*.
22. Amanda Folk, "Reframing Information Literacy as Academic Cultural Capital: A Critical and Equity-Based Foundation for Practice, Assessment, and Scholarship," *College & Research Libraries* 80, no. 5: 662, https://doi.org/10.5860/crl.80.5.658.

23. Ibid, 668.
24. bell hooks, *Teaching to Transgress: Education as the Practice of Freedom* (New York: Routledge, 1994), 5.
25. Hsiu-Fang Hsieh and Sarah E Shannon, "Three approaches to qualitative content analysis," *Qual Health Res* 15, no. 9 (2005): 1277-88, https://doi.org/10.1177/1049732305276687.
26. Virginia Wilson, "Research Methods: Content Analysis," *Evidence Based Library and Information Practice* 11, no 1. (2016): 41-43, https://doi.org/10.18438/B8CG9D.
27. Marilyn Domas White and Emily E. Marsh, "Content Analysis: A Flexible Methodology," *Library Trends* 55, no. 1 (2006): 22-45.
28. Carnegie Classification of Institutions of Higher Education, "Doctoral Universities: Very High Research Activity," last modified 2021, https://carnegieclassifications.acenet.edu/listings.php.
29. Kimberly A. Neuendorf, *The Content Analysis Guidebook* (Thousand Oaks: Sage Publications, 2002), 18.
30. Laura Saunders and Melissa A. Wong. *Instruction in Libraries and Information Centers: an Introduction* (Champaign, IL: Windsor & Downs Press, 2020); WebAIM (Web Accessibility in Mind), "Diverse Abilities and Barriers," accessed February 28, 2023, https://www.w3.org/WAI/people-use-web/abilities-barriers/.
31. WebAIM, "Diverse Abilities and Barriers"
32. Clossen and Proces, "Rating the Accessibility," 803-825.
33. UC Berkeley, "What is "Descriptive Audio"?," last modified October 5, 2016, https://webaccess.berkeley.edu/ask-pecan/descriptive-audio.
34. Clossen and Proces, "Rating the Accessibility," 813.
35. Heinbach, Mitola, and Rinto, *Dismantling Deficit Thinking in Academic Libraries*: 70-71.
36. Kelly Diamond, "Rejecting The Criminal Narrative; Designing a Plagiarism Avoidance Tutorial," *Journal of Electronic Resources Librarianship* 31, no. 4 (2019): 235, https://doi.org/10.1080/1941126X.2019.1669962.