Balancing, Prioritizing, and Reimagining: Comprehensively Updating Asynchronous Library Instruction

Grace Therrell

University Libraries, University of Tennessee, Knoxville
https://orcid.org/0000-0002-9376-4530

Abstract

Academic instruction librarians and library instruction programs have been turning to online instruction in recent years as an option for creating a more sustainable presence. Developing online learning opportunities often requires various considerations outside of identifying learning needs. Librarians may consider designing for students both in-person and online; creating online instruction to replace or supplement one-shot sessions; and marrying chosen technology with a pedagogical approach. These are common to instruction librarians as they create online learning, but they are also sometimes challenging to address simultaneously. This process-focused article details one librarian's experience balancing all three of these considerations while reimagining asynchronous library instruction for large-enrollment introductory public speaking courses. This article shares an iterative process for determining needs and addressing multiple considerations. It also details how the author practically addressed considerations as well as how the redesigned instruction was implemented. There is discussion on the idea of "comprehensive" design and what it means to balance multiple priorities in practice. The article ends with recommendations for librarians who are designing or redesigning online instruction who are holding many interests and goals in mind.

Keywords: online learning, information literacy instruction, asynchronous instruction, academic libraries

Online learning in libraries is not a new concept, especially in the wake of initial moves to emergency remote teaching in spring 2020. As the world shifts into a new phase of pandemic life, colleges and universities are continuing to concentrate on distance students. There is also an increase in blended learning, with instructors pairing classroom teaching with online learning components (Marcus, 2022). Libraries support all these students regardless of where and how they're learning. Because of this educational landscape, library instruction must be flexible to meet students where they are. Online library instruction is well-situated to achieve this flexibility: it is accessible to students regardless of environment, it is scalable, and it is more sustainable than relying solely on traditional one-shots. However, effective virtual instruction likely must address the needs of both on-campus and distance students. Another set of considerations emerges when developing asynchronous instruction to replace the traditional one-shot. Additionally, librarians developing online instruction must consider both instructional technology and pedagogy.

In Fall 2021, the author began liaison duties with two large-enrollment general-education public speaking courses. This was an opportunity to re-envision existing asynchronous library instruction for these two courses. At the beginning of this project, the author learned of disparate needs that needed to be addressed–not just the content and its instructional design, but also a large number of students in different learning environments. This article shares an approach to balancing needs on three different levels: first, meeting needs of a large-enrollment general education course with both in-person and distance students; second, redesigning asynchronous instruction developed as a one-shot replacement; and third, finding synchronicity between the online and learning aspects of asynchronous instruction.

Literature Review: Designing, Replacing, and Reconciling

Designing for All Students

A benefit of online instruction is the ability to facilitate learning for students regardless of their primary educational environment. Distance students who can't access in-person library support need virtual options; students who attend classes exclusively in-person can still benefit from accessing an online tutorial or virtual workshop on their own time. Online instruction can exemplify accessibility, "an ethic and set of design approaches that attempt to ensure that the fullest use of any resource is open to the greatest number of people" (Booth, 2012, p. 5). Using online options provides library instruction, expertise, and resources to the widest range of students. Virtual library instruction importantly meets distance students where they are physically and can facilitate learning for in-person students. This can be achieved in

many different ways. For teaching, the flipped classroom–using asynchronous options with synchronous or classroom instruction–is a popular approach here (Hawes & Mason Adamson, 2016; Humrickhouse, 2021). For instructional design, calling on Universal Design for Learning principles (CAST, 2018) can emphasize accessibility during the planning process. Intentional instructional design and teaching approaches ensure that the greatest number of students can benefit from online library instruction.

Replacing the One-Shot

Online library instruction is frequently used as a substitute for or in conjunction with one-shot instruction. Virtual instruction as substitution can be especially helpful for large-enrollment courses with high instruction needs (LeMire, 2016; Moran & Mulvihill, 2017). This approach has also become more popular as a result of the COVID-19 pandemic, with librarians creating online instruction to replace in-person instruction (Olsen & Dale, 2022). Others have used online instruction to supplement one-shots. For example, Tomaszewksi (2021) translated an in-person workshop into four videos with "the same content, learning outcomes, and worksheet tasks" to learn how students responded to the in-person workshop and the virtual option (p. 3). Surveys concluded that while both were helpful, pairing the in-person and online workshops was useful. Another example is using a research guide as both a primary instructional material and supplemental learning tool to provide different learning options (Hansen, 2022). Using online resources to substitute or supplement can support students' learning as well as support sustainability for librarians. Gross (2023) advocates for this supplementary model, reminding us that one-shots can have a uniquely relational purpose. Librarians can still provide one-shot sessions but supplement them with online resources to create more comprehensive instruction.

Synchronizing Online+Learning

Online learning in libraries may be common and well-documented, but there is a tension that continuously exists. In their article on creating online library instruction according to best practices, Lierman and Santiago (2019) argue that "the majority of best practices in the literature for online [information literacy] learning objects are focused more on the technical than the pedagogical" (p. 208). It can be easy to focus on finding technology for virtual instruction at the expense of well-considered learning goals. The opposite can also be true, with a strong focus on pedagogy leading to choosing a technology at random. Dissolving this tension is important when developing online learning opportunities, whether creating a single tutorial or an entire online semester-long course. There are specific design and learning principles to keep in mind when

creating online learning opportunities, and instructional design models may be useful here (Hess, 2020; Rapchak, 2016). Yet librarians can also opt to create their own approach. For example, Greer (2023) discusses implementing a pedagogy of care into an asynchronous undergraduate course focused on information literacy. She notes that care is enacted both in teaching and in the design of the course, and that much of her pedagogy is through course preparation using modeling, dialogue, and practice (p. 4). The online environment can also be chosen *because of* pedagogical goals. Humrickhouse (2021) describes the decision and process of moving an information literacy curriculum online in order to take advantage of a flipped classroom approach and increase knowledge transfer. It may be that the virtual environment or a specific instructional technology works best to facilitate learning. Regardless of learning goals or situation, pedagogy and technology can work together with time and intentionality.

When librarians are creating online learning opportunities, they likely consider one or some combination of these three areas: designing their instruction to benefit all students; designing their instruction to replace or supplement one-shot sessions; and prioritizing both good technology and good pedagogy. The rest of this article details the author's experience with balancing these three areas in a redesign of asynchronous library instruction.

Background

The University of Tennessee, Knoxville (UTK) is a research institution and the flagship university for the state. In recent years, enrollment has continued to increase, largely reflected in the number of students taking first-year and general education courses. In the 2021-2022 academic year, when this project was initially implemented, there were just under 6000 first-year students among a total of approximately 25,000 undergraduate students at UTK (Institutional Research and Strategic Analysis, 2022, p. 24). Of those undergraduate students, over 1600 were enrolled in one of two introductory public speaking courses: Introduction to Public Speaking (CMST 210) and Business and Professional Communication (CMST 240). This number has continued to rise over the past calendar year, with over 2000 students enrolled in these courses for the Spring 2023 semester.

The author redesigned instruction created for these two introductory Communication Studies courses. CMST 210 and CMST 240 are similar classes, with a primary difference being that CMST 240 presents public speaking content within a business and professional context. Both courses are taught by non-tenure track faculty, graduate students, and adjunct instructors. Instructors are given a sample syllabus and course shell in Canvas (UTK's learning management system), resulting in fairly similar

learning goals for all students who take these courses. Additionally, while most courses are taught on campus, there are a few fully online sections of these courses including both synchronous and asynchronous sections. There have been online sections of this course for years, even pre-COVID.

Both CMST 210 and CMST 240 have similar assignments, including the main research assignment: the international/intercultural informative speech. In this assignment, students pick a topic that can be explored globally and they prepare an informative speech that incorporates at least three sources. Most instructors require students to include at least one scholarly source. For several years now, these courses have incorporated online library instruction as a way of supporting students as they work on their informative speeches. When the author took over liaison duties for these two courses in Fall 2021, the existing instruction had been used for seven years. It was initially created to reach the large number of students both in-person and online in a scalable, sustainable way. Though the instruction functioned for students and instructors, the author decided to take the opportunity to redesign the instruction to comprehensively address all online learning considerations: design for all students, one-shot replacement, and pairing pedagogy with technology.

Initial Assessment

The previous online instruction–which instructors call the "library assignment"–was asynchronous and housed in a LibGuide. Students worked through three sections on different research concepts: finding, evaluating, and citing sources. Each part included brief paragraphs of explanation followed by interactive tutorials or examples to help students practice their skills. The guide culminated in a final 10-question quiz, which students would complete for a grade and a certificate. Students were asked to send their certificates to their instructors, who would then assign a grade for completing the assignment.

The existing CMST 210 and CMST 240 library assignment prioritized a couple of online learning considerations. First, it was created in order to meet the instruction needs of 1500 students who were both in-person and online. Using a LibGuide, tutorials, and quiz format ensured that students taking their courses online would have the same instruction as students taking their courses on campus. The asynchronous format also meant that all 1500 students in 70+ sections would receive instruction, which would not have been possible for one librarian to achieve through one-shots each semester. However, there were also opportunities for improving the library assignment and filling some gaps. For instance, the author saw an opportunity to think more intentionally about how the assignment stood in for one-shot sessions. The content filled that foundational instruction need, but there was also room for using this

asynchronous instruction to build relationships with students. This was also an opportunity to reconsider the technology and pedagogy of the assignment. The existing assignment covered the necessary topics related to the courses' informative speech assignments, and it used a platform that UT Libraries already had access to. The existing instruction was a great example of trying something new and filling a need when it arose using what was available. In this new role, though, the author knew that this library assignment could benefit from using a different platform and pedagogical approach. The task became reimagining this asynchronous library assignment in a way that balanced all three of these areas: maintaining design for all students, enhancing the one-shot replacement, and rethinking the online and learning aspects.

Comprehensive Reimagining: An Iterative, Organic Process

The author followed a fairly intuitive and simple design process. Instead of using an instructional design model, the reimagining moved forward in a way that felt authentic and meaningful for this project. There were four basic stages: listening, brainstorming, collaborating, and creating. Like many processes, this one was iterative rather than linear, with these stages happening organically and dynamically. Each stage helped balance the three overarching areas while deciding what to prioritize within them.

Listening

The listening phases focused on learning student and instructor needs for the assignment. Before starting to think about new ideas, the author consulted existing data to determine what to prioritize in the redesign. Data included instructor feedback from meeting notes, and student feedback in survey data from previous semesters. The author also spoke with instructors before the fall semester to confirm needs.

The author identified three priorities from feedback for the library assignment redesign. First, the updated library assignment needed to be automatically graded and implemented into Canvas. Most, if not all, public speaking instructors have high teaching loads and many responsibilities. Canvas integration would make the library assignment as low-effort and sustainable for instructors as possible because they wouldn't have to keep up with grades as they had been doing with the LibGuide-Quiz format. This was a technological priority for rethinking the online aspects of the asynchronous instruction.

Second, the updated library assignment needed to be more interesting and engaging. Students in their survey responses mentioned that the current library

assignment was redundant, explaining they had already completed the tutorials, they were already familiar with the content, or they thought the assignment was boring. Instructors and the Director of Public Speaking echoed this observation, suggesting that the new assignment be more current, interesting, and engaging. This priority touched all three major considerations, as librarians consider engagement in almost all aspects of their work and certainly in their teaching. Updated instruction could appeal to all students, cover more specific research concepts at point-of-need, and engage students in asynchronous learning.

Third, the updated library assignment needed to cover credibility, scholarly sources, and verbal citation. Instructors said that these concepts remained relevant for students to understand during the research process for their informative speeches. This simplified the approach for enhancing the one-shot replacement because the general topics were already decided. More effort could be spent thinking about the relational aspects of the asynchronous instruction.

Listening also occurred near the end of the process by asking stakeholders and volunteers to test the updated instruction and provide feedback. The author reached out to the course instructors, a couple of students, and other librarians to learn what could be improved immediately and what could be longer-term opportunities for change. Some feedback was immediately incorporated into the redesign, such as wording changes and fixing links. Other feedback was acknowledged for future consideration. These listening phases throughout the redesign process revealed priorities and brought students and instructor voices more concretely into the assignment development.

Brainstorming

The brainstorming phases of this project involved exploring approaches to address student and instructor priorities and identifying the author's goals for the project. One primary method for achieving this was using an instruction plan. In this document, the author refined ideas for learning goals, technology options, and assessment. This document also provided a space to scaffold and outline the asynchronous instruction. Brainstorming occurred throughout the redesign process, but it took up the most time near the beginning of the project. The brainstorming stages were most useful to more fully understand and determine the pedagogical approach to the redesign. As an educator with a humanist/feminist/transformative teaching philosophy, the author had a personal priority to create student-centered instruction. In practice, this looked like calling on students' lived experiences, creating moments for reflection, and offering multiple ways of engaging. This approach would honor students' lived experiences and preferences, as well as help them connect their existing

knowledge within a new context. The primary pedagogical goal was to meet students wherever they were in their understanding, in their energy levels, and in their learning spaces.

Collaborating

Like the previous two phases, collaborating was regular and iterative. Collaborating is distinguished from listening based on the time commitment involved. For example, the author met with the Director of Public Speaking several times throughout the reimagining process. She helped contextualize feedback from students and instructors and she also helped identify which suggestions were necessary and which could wait. The Director also provided input on the instruction plan, working with the author to determine what specific concepts and technology would be most helpful for the library assignment. She provided valuable information about the international/intercultural informative speech assignments and helped fully contextualize research concepts within the CMST 210 and CMST 240 curriculum. Other collaborations included the author's department head as well as the department's instructional designer to make sure that the library, accessibility, and design components were effective. Working with both of these partners ensured that the redesign plan would work practically for all students. The department head and instructional designer also shared feedback as two people who were not direct stakeholders in the project. Collaborating provided direction and support for balancing students' and instructors' primary needs with meeting personal goals for the reimagined library assignment.

Creating

The final new phase was creating. Using the instruction plan and meeting notes from different collaborating partners, the author drafted the new library assignment. Specific tasks included writing content for lessons, locating videos and support resources, designing interactive elements, choosing scholarly articles to use as examples, and creating knowledge check questions with feedback. Collaboration continued with the Director of Public Speaking, the author's department head, and the instructional designer to evaluate and steer the new library assignment as it was being created. The creating phase ultimately involved finding practical, concrete ways to design the new instruction and make decisions while balancing priorities and the three online learning considerations.

Design and Decisions while Balancing

Student and Instructor Priorities

Three priorities emerged during the listening phases from student and instructor feedback: automatic grading and Canvas implementation; more interesting and engaging instruction; and instruction on credibility, scholarly sources, and verbal citation. The first priority to address was deciding on a platform that would allow the assignment to be integrated and automatically graded in Canvas. The obvious option was to build a module in Canvas that instructors could add to their courses. However, in thinking about a more interesting and engaging library assignment, Canvas modules were not necessarily the best option. It was also important to consider what platform would allow for creating student-centered instruction that could be modular and flexible. Ultimately, the author chose a new-at-the-time software to UT Libraries: Articulate's Rise 360. Rise 360 is a subscription-based online learning and instructional design platform that allows for modular, interactive, and flexible lessons. The platform is easy to use for creators and well-designed for learners. Importantly, Rise 360 also has learning management system (LMS) integration through the Shareable Content Object Reference Model (SCORM) format. Articulate products are regularly used in libraries for asynchronous learning (for examples, see Douglas et al., 2021; University of Arizona Libraries, n.d.). Using Rise 360 would allow design freedom while also addressing Canvas integration and more engaging instruction.

The other priority to address was including credibility, scholarly sources, and verbal citation in the library assignment's content. Instructors identified these as important concepts for students to know for their international/intercultural informative speeches. While finding credible sources was important, some instructors cared more about students being able to find scholarly sources. Almost all instructors prioritized verbal citation over these two topics; this was confirmed by the Director of Public Speaking. The author decided to be intentional with the content by using these three concepts to determine the specific topics covered in the virtual instruction. These three main concepts became the foundation for a Rise 360 course with three primary sections. The first section, "Finding Reliable Information," focused on unpacking reliability and using strategies to evaluate sources. The second section, "Working with Scholarly Sources," dissected a scholarly source and provided strategies for reading and using one in research. The third section, "Verbally Citing Information," covered why we cite information as well as details on creating effective verbal citations. All lessons followed a basic structure. First, students encountered a brief paragraph or two of text that asks them to consider their experience or prior knowledge. That knowledge would

then be recontextualized through an example, video, and/or activity that would explain the concept in research. Each lesson would end with an example or activity of how that concept related to the informative speech assignment. Each instructor-identified concept was broken down into smaller pieces, and lessons were framed to relate to students' experiences and knowledge as well as the informative speech assignment.

Designing for All, Replacing One-Shots, and Synchronizing Online+Learning

In addition to priorities communicated from students and instructors, there were three considerations for online learning to keep in mind. First, it was important to maintain what the previous library assignment had accomplished in designing for all students. Keeping the asynchronous modality helped with this. Additionally, choosing the Rise 360 platform ensured that the new instruction was designed accessibly. The author also consulted the Universal Design for Learning guidelines, focusing on providing multiple means of engagement, representation, and expression. In practice, this looked like using text, videos, images, audio, scenarios, and interactive elements to engage students both technologically and intellectually. The updated virtual instruction also included invitations for reflection and various knowledge check formats for students' self-assessment. Examples include fill-in-the-blank, multiple choice, and matching. The redesigned instruction was also self-paced like the original library assignment, able to meet students where they were in their physical spaces and at their energy levels.

Additionally, it was necessary to determine how to maintain and enhance a reimagined library assignment as a replacement for one-shot instruction. One consideration here was aligning the asynchronous instruction's scope and demand with an in-person class session–in other words, ensuring that students were not spending two hours on a virtual library assignment when they would have spent 50 minutes in a classroom session. The updated library assignment was created to be completed in an average of 45 minutes. The new assignment does cover more information than a typical one-shot session, but this was rationalized by the self-paced nature of the instruction. Furthermore, the library assignment was redesigned to be more personal, conversational, and relational. The author included an introduction and picture so that students would know that a person was behind the assignment. The assignment lessons also took on a conversational tone throughout. At the end of the assignment, the author included contact information again and provided options for students to get more support. While this library assignment stood in for one-shot instruction, this information at the end of the assignment communicated that students could get help with their research outside of this single learning interaction.

The final consideration was designing the new library assignment in a way that worked technologically and aligned with the author's personal teaching values and approach. One strategy here was choosing a platform that *worked with* pedagogy. While Rise 360 worked for instructors because it could be integrated in Canvas, it also worked well for the author's desired structure and approach to the assignment. For instance, Rise 360 allows for modular design, which allowed for chunking down concepts and scaffolding the instruction as a whole. As previously mentioned, the platform also supports self-paced instruction which aligns with creating student-centered learning opportunities and recognizing students as whole individuals. For learning design, Rise 360 includes different kinds of content options and interactive options, supporting multiple means of engagement, representation, and expression. There was also room to invite students into reflection throughout the library assignment. Choosing this platform supported a library assignment aligned with a student-centered teaching approach.

The Results: Implementation, Reception, and Evaluation

All of these considerations and iterative processes resulted in a comprehensively-updated asynchronous library assignment, with individualized versions for CMST 210 and CMST 240 (public versions of these courses are available to view–see Therrell, 2022a; Therrell, 2022b). Instead of the LibGuide-Quiz format, the library assignment was reimagined as an interactive course that wove text explanations with multimedia resources and single-question knowledge checks. It included learning expectations at the beginning of the course with an introduction of the assignment and the courses' librarian. The instruction also included a summary and wrap-up section at the end which listed library support resources and offered a place for students to give anonymous feedback. The final versions of the CMST 210 and CMST 240 assignments were uploaded into the Canvas Commons for instructors to access. Since the updated virtual instruction was published and available in Spring 2022, the Rise courses have been used each semester by public speaking instructors. Based on sections and enrollment, just under 5700 students in 269 sections have completed the library assignment between Spring 2022 and Summer 2023.

So far, both students and instructors have responded positively to the redesigned library assignment. Each semester, instructors who are new to using the assignment have access to an anonymous Google Form. This form asks questions about their experiences with the technical aspects and content. This form hasn't yielded many responses, but the responses that have been received have been helpful and positive. While there have been some issues with the automatic grading feature in Canvas, instructors appreciate the functionality of the new assignment as well as its updated

design. Instructors have also continued to support the assignment and share informal positive feedback during instructor meetings at the beginning of each semester.

Student feedback has also been collected in a Google Form. Each Rise course contains an embedded anonymous Google Form in the wrap-up section. This optional form asks students what resonated with them, what questions they have, what they think is missing from the instruction, and anything else they want to share. From Spring 2022 to Summer 2023, over 2600 students have responded to this form out of a total course enrollment of 5965 students (a total response rate of almost 45%). Informal analysis has provided enough evidence that the redesign has been successful. Student feedback has been overwhelmingly positive, and many aspects of the instruction have resonated with them from content to design to structure. Students have shared that they resonated with specific topics, especially evaluating information and creating verbal citations. They have also resonated with the instruction's design and using the Rise 360 platform. A more robust analysis of this data from the first year of implementation is in progress.

Discussion

This reimagination was an experiment in comprehensively creating online instruction. This project attempted to meet student and instructor needs while simultaneously addressing three major online learning considerations: designing for all students, replacing one-shot instruction, and prioritizing both technology and pedagogy. In many respects, this reimagining was successful. This is evidenced by the fact that instructors continue to use the new library assignment in their classes, but it is also evidenced in student feedback. Students have commented on many aspects of the virtual instruction that align with the major online considerations and the decisions made in relation to them. For instance, one theme that has emerged has been an appreciation for the instructional design of the library assignment. When asked what resonated with them, students have pointed to design. They like the use of videos, audio examples of verbal citations, an interactive platform, and the seamless organization and flow. When asked to share anything else, students have repeated that they like the instruction's design, they found it straightforward and easy to navigate, and they found it helpful and valuable. Students have also shared what they have learned from the assignment: strategies for evaluating sources, reasons for citing their sources, part of scholarly articles, and how to create verbal citations. These larger themes reflect the attention to pedagogy and technology in the design process. They also reflect the attention paid to student- and instructor-identified priorities, primarily creating more engaging instruction. Instructor feedback has functioned similarly. Instructors have shared how they appreciate the Canvas integration, as well as that the

library assignment has helped prepare their students for researching for their informative speeches. This feedback reflects and justifies attention paid to primary instructor needs: Canvas integration and addressing specific research concepts. Both students and instructors have responded positively, illustrating that a comprehensive approach can work in theory as well as in practice.

One caveat here is the importance of determining what "comprehensive" means and what is necessary for any given project. Naturally, supporting learning in any environment involves balancing and prioritizing different needs, goals, and considerations. Not every asynchronous instruction update has to involve juggling of multiple considerations along with stakeholder feedback. In some instances, it may be more helpful to focus on one area, such as designing asynchronous instruction to supplement a one-shot session. Regardless of the project, librarians must determine what is immediately necessary and decide what to focus on. This self-labeled "comprehensive" approach also involved making decisions about what to focus on and how to approach addressing these different considerations. Even with intentionality–carefully balancing all of the necessary considerations–it isn't possible to balance everything. This redesign process was comprehensive, but it also left some things undone. While this provides opportunities for improvement, it also illustrates the limitations of taking multiple needs into account when creating online instruction. It is possible to consider multiple priorities in a project like this, and it is possible for the project to be successful. But it is also necessary to choose between what is immediately helpful and what can wait. In some contexts, it simply isn't possible to balance so many different needs due to lack of time or resources. Sometimes what's best is to create something that works. This may often be the case for librarians creating online learning objects or developing online instruction. When it is necessary to do less with less, it may only be possible to prioritize one set of needs or focus on one consideration rather than balancing multiple considerations.

Conclusion and Recommendations

It is helpful to remember that creating online learning is an iterative process and involves prioritization and balance regardless of how much each project is attempting to juggle. However, it is possible to successfully reimagine instruction. For others attempting similar projects, some steps and approaches are recommended.

- Embracing iterative processes and working in stages might be most helpful, as this provides opportunities for reflection and identifying areas for improvement.
- Take time to identify stakeholder needs *and* personal goals for instruction. While this is not always a speedy process, it can help create learning opportunities that work for students and feel authentic to librarians' teaching approaches.

- Consider what technology or virtual aspects will support a desired instructional approach. Use learning goals, ideas for facilitating learning, and technical needs to guide this choice.
- When prioritizing, it's important to remember that not everything can and must be tended to within the boundaries of a single project. Take time to consider what needs to be done in relation to how much time and effort can be allotted.

This comprehensive reimagining involved significant time, energy, planning, collaboration, and experimentation that resulted in a more effective and engaging experience for both students and instructors. This project is just one example of how online instruction can meet various needs and be designed according to multiple considerations. Though this level of redesign is not possible for all projects, these principles can be adapted for different contexts to support intentionality and thoughtfulness when creating asynchronous library instruction, whether focusing on one of these considerations or balancing many.

References

Booth, C. (2012). Introduction: Why accessibility? In C. Booth (Ed.), *Making libraries accessible: Adaptive design and assistive technology* (pp. 5-6). ALA TechSource.

CAST. (2018). *The Universal Design for Learning Guidelines.* http://udlguidelines.cast.org

Douglas, V. A., Deal, E., & Hernandez, C. (2021). Valuing the everyday: Using experiential scenarios to evaluate information. *College & Research Libraries News, 82*(9), 410-413. https://crln.acrl.org/index.php/crlnews/article/view/25151/33014

Greer, K. S. (2023). A pedagogy of care for information literacy and metaliteracy asynchronous online instruction. *The Journal of Academic Librarianship, 49*(3). https://doi.org/10.1016/j.acalib.2023.102676

Gross, B. (2023). Safety net: Weaving a web of resources to catch what one-shots can't. *Journal of Electronic Resources Librarianship, 35*(2), 114-128. https://doi.org/10.1080/1941126X.2023.2197752

Hansen, J. I. (2022). As you like it: Building, executing, and assessing an adaptable library instruction program for first-year experience courses. *Communications in Information Literacy, 16*(2), 182-203. https://doi.org/10.15760/comminfolit.2022.16.2.6

Hawes, S. L., & Mason Adamson, J. (2016). Flipping out over online library instruction: A case study in faculty-librarian collaboration. *Journal of Library & Academic Services in Distance Learning, 10*(3-4), 254-267. https://doi.org/10.1080/1533290X.2016.1219202

Hess, A. N. (2020). *Modular online learning design: A flexible approach for diverse learning needs.* American Library Association.

Humrickhouse, E. (2021). Flipped classroom pedagogy in an online learning environment: A self-regulated introduction to information literacy threshold concepts. *The Journal of Academic Librarianship, 47*(2). https://doi.org/10.1016/j.acalib.2021.102327

Institutional Research and Strategic Analysis. (2022). *University of Tennessee, Knoxville fact book.* https://irsa.utk.edu/wp-content/uploads/sites/107/2022/08/2021-2022-University-of-Tennessee-Knoxville-Fact-Book-Portrait.pdf

LeMire, S. (2016). Scaling instruction to needs: Updating an online information literacy course. *Reference & User Services Quarterly, 56*(1), 17-22. https://doi.org/10.5860/rusq.56n1.17

Lierman, A., & Santiago, A. (2019). Developing online instruction according to best practices. *Journal of Information Literacy*, *13*(2), 206-221.

Marcus, J. (2022, October 6). With online learning, 'Let's take a breath and see what worked and didn't work'. *The New York Times*. https://www.nytimes.com/2022/10/06/education/learning/online-learning-higher-education.html

Moran, C., & Mulvihill, R. (2017). Finding the balance in online library instruction: Sustainable and personal. *Journal of Library & Information Services in Distance Learning, 11*(1-2), 13-24. https://doi.org/10.1080/1533290X.2016.1223964

Olsen, R., & Dale, J. (2022). Converting in-person library instruction for an introductory Communication Studies course into an online asynchronous module: One team's experiences. In M. Chakraborty, S. Harlow, & H. Moorefield-Lang (Eds.), *Sustainable Online Library Services and Resources: Learning from the Pandemic* (pp. 35-48). Bloomsbury Publishing.

Rapchak, M. E. (2016). Is your tutorial pretty or pretty useless? Creating effective tutorials with the principles of multimedia learning. *Journal of Library & Information Services in Distance Learning, 11*(1-2), 68-76. https://doi.org/10.1080/1533290X.2016.1226579

Therrell, G. (2022a). *Preview: CMST 210 virtual library instruction*. https://tinyurl.com/210libdraft

Therrell, G. (2022b). *Preview: CMST 240 virtual library instruction*. https://tinyurl.com/240libdraft

Tomaszewski, R. (2021). A STEM e-class in action: A case study for asynchronous one-shot library instruction. *The Journal of Academic Librarianship, 47*(5). https://doi.org/10.1016/j.acalib.2021.102414

University of Arizona Libraries. (n.d.). What types of sources do I need? *Tutorials: Information Literacy*. https://lib.arizona.edu/tutorials/types-of-sources/#/