Reference Services and Instruction
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Translating the Accessibility of Live Demonstrations from Library Instruction to Reference Interactions

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As librarians whose roles focus on teaching, we aim to provide meaningful and equitable learning experiences for all students, including students with disabilities. However, as is the case for many librarians, there is an overwhelmingly one-time nature to our interactions with students. Our instruction sessions are usually "one-shots" and, while in our research consultations we may see some students repeatedly, most often we will only see them once or twice in a semester. The often-one-time nature of our work means that we have limited information about the needs of our students, and few opportunities to meaningfully assess students' learning experiences. As such, it is challenging to determine how accessible our teaching is, both in the classroom and in our research consultations.

In the Fall of 2023, we started an exploratory project focused on investigating the accessibility of screenshots and live demonstrations in library instruction. This project was motivated by our participation in McMaster University's inaugural cohort of Accessible Education Fellows, a program for members of the McMaster community interested in enhancing the accessibility of their teaching practice. In choosing a focus for our project, we recognized the centrality of screenshots and live demonstrations in our instruction, and the need to ensure that we are providing screenshots and live demonstrations in a way that is accessible for all students.

We conducted a literature review, consulted with accessibility experts and fellow cohort members, and met with our university's Student and Alumni Accessibility Council to help us in developing a list of practices to support accessibility in using screenshots and live demonstrations. As we went through this process, we soon realized that our understanding was not limited to the in-class instruction portion of our portfolio but rather, much of what we have learned could also be applied in the research consultation context. Specifically, live demonstrations are a strategy we often employ when meeting with students for research consultations both in-person and online. In our consultations, as in one-shot instruction, we rarely have access to information about the students' accessibility needs. We can ask students about any accommodation they might need in a research consultation request form, but students might not feel comfortable disclosing this information or they may not understand what's being asked. As such, it is our responsibility to make sure that we can meet our students' needs, regardless of the information (or lack thereof) that we might be working with.

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In this piece, we will describe the ways in which we have applied our findings about making live demonstrations accessible in our research consultations and provide recommendations for others to implement. We will speak about using multiple modes of instruction, alternative formats, and alternate modes of information delivery in the reference setting. We focus on a universal design approach which can help us make our consultations more accessible to the students we work with and ultimately enhance student learning.

Universal Design

Although there is limited discussion of accessibility in library reference interactions in the literature, we can look to articles that consider accessibility in library instruction for guidance. Acknowledging that librarians often don't have access to information about the accessibility and accommodations needs of the students in the one-shot instruction sessions they teach, several authors have recommended that librarian educators embrace a Universal Design approach in their teaching, specifically citing Universal Design for Learning (UDL) or Universal Design for Instruction (UDI).[1] We know that many students do not disclose their disabilities to their institutions,[2] and a universal design approach benefits all students, including those with undisclosed disabilities.

Using UDL or UDI as a framework can help librarians to develop instruction sessions that are flexible and offer students different ways of experiencing a session, depending on their needs and preferences. Additional frameworks for applying Universal Design in the classroom, such as Universal Instructional Design (UID) and Universal Design of Higher Education are also relevant to this discussion, but here we focus on UDL or UDI as these are the frameworks we saw most frequently cited in the library literature on this topic.

The Universal Design for Learning Principles include:

- Multiple Means of Engagement
- Multiple Means of Representation
- Multiple Means of Action and Expression[3]

The Universal Design for Instruction Principles include:

- Equitable use
- Flexibility in use
- Simple and intuitive use
- Perceptible information
- Tolerance for error
- Low physical effort
- Size and space for approach and use[4]

Accessibility from Instruction to Consultations

There is much overlap between accessibility practices applicable to instruction and those applicable to research consultations, especially relating to the use of live demonstrations. We can learn from the recommendations that authors make about the implementation of UDL and UDI to library instruction and apply these ideas to the teaching we do in reference interactions and research consultations. Practically speaking, live demonstrations are one of the main tools we use in our research consultations, regardless of whether they take place in-person or online. Like their use in instruction, live demonstrations present the simplest means of walking students who are

unfamiliar with the library website, databases, or academic literature through the research process. Here, we focus on those accessibility practices in instruction that are most relevant to the use of live demonstrations in research consultations.

The UDI principle of "perceptible information" is particularly important in live demonstrations, and there are several relevant practices recommended in the literature. When discussing accessibility for presenting, Pionke recommends practices for making it easy for your audience to see, hear, and reach out to you.[5] Librarians should face their audience, make eye contact, and pay attention to students' body language to be able to recognize when students are engaged or disengaged, and whose body language suggests that they may be struggling with the presentation of the material. Librarians should also speak loudly and clearly and, in larger classrooms, use a microphone. Librarians can choose to walk around the classroom to ensure they are closer to students, to encourage a personal connection and create opportunities for students to ask questions and get direct help. During live demonstrations, librarians should slow their rate of speaking and their movements on the screen or repeat steps to ensure students don't miss a step or fall behind.[6] Further, they should modify the settings on the screen being used for the demo to make text and visual elements of databases and other tools being shown larger, to allow students to better perceive the information.

Although we find ourselves outside of the classroom environment, the value of "perceptible information" in research consultations remains the same. It is still important for our students to be able to see and hear us clearly during our research consultation, both in-person and online. As we are typically working with a single student during research consultations, we can integrate verbal check-ins to make sure that they understand any concepts or strategies that we address. We can also use these check-ins to determine whether we are meeting their accessibility needs by asking questions such as, "Would it be useful for me to show you this on my screen?" or asking whether the student would like us to zoom in further or increase the font size. During a demonstration we can also make sure to speak at a slower rate and look to limit any sudden movements on screen.

The principle of "simple and intuitive use" from UDI, when applied to instruction, guides us to focus the content of an instruction session on the information that is relevant to the session's learning outcomes and the skills that students need to know at that time, without making things more complicated than they need to be. This principle also reminds us to use clear everyday language, avoid jargon, and explain terms that might be new to students.[7]

"Simple and intuitive use" is also relevant to our research consultations. It is important to understand what our students are looking for in a research consultation and meet those needs. Our instinct may be to introduce the students to all we consider important, but this might overwhelm and hinder rather than assist. As such, we should prioritize their request and work collaboratively to determine if additional information would be beneficial. Further, we should look to limit or clarify our use of library jargon. For example, explaining the role of Boolean operators and modifiers is more important than the students learning what they are called.

Providing multiple means of representation includes ensuring that students have access to learning materials and class notes before and after class, to allow students adequate time to review them,[8] and providing materials in alternate formats, such as offering both electronic and print versions of a handout or making information available in online course guides.[9] Another way of enacting this principle is to provide information in the classroom in multiple modes, such as providing relevant images along with written text and a verbal description.[10] We want to make sure to use captions whenever possible and be sure to include alt text when using images to increase accessibility.

Presenting the same information using more than one mode at a time allows students to engage with the information in a way that is effective for them. When demonstrating a database or other tool in a live demonstration, showing the steps involved in navigating the platform visually on the screen, while at the same time providing a comprehensive verbal description of the process, is a way to offer two simultaneous and complementary modes of representation.

In our explorations of accessibility in live demonstrations, we heard from the McMaster Student and Alumni Accessibility Council (STAAC) that they value being shown how to use a database or other research tool, rather than just having it described to them verbally or in text on slides in the classroom. Watching a librarian demonstrate how to use a tool helps students better understand how they might approach using that tool themselves. They felt that these demonstrations were more useful when the librarian also provided a verbal description of what they were doing and why they were doing it throughout the demonstration. Though not all STAAC members agreed on the preferred form of this description (some preferred more detailed descriptions and some preferred less detailed), the preference for providing a verbal description to complement a visual demonstration aligns well with the UDL principle of multiple means of representation.

In providing multiple means of representation in a consultation, we may not only share our screen while conducting a live demonstration, but we can also verbally describe what we are doing. Further, we can look to provide alternate formats after the session, such as shared notes via a follow-up email, links to video tutorials that describe the same concepts, links to online course guides that include information discussed, or a recording of the consultation if one was requested. We not only want to prioritize multiple means of representation when we are sharing our screen but when students share their screen as well. We can ask students to describe what they are sharing on screen, or we may choose to describe it back to them as a means of confirming our mutual understanding.

In the classroom, "multiple means of engagement" can refer to giving students options for how they engage in discussion or ask questions (e.g., orally or in text).[11] It is important to prioritize flexibility of interaction with our students in our consultations too. This can be done by allowing students to choose whether to meet in-person or virtually to best meet student expectations and needs. Some students may live far from campus and prefer to meet online when possible while other students might not have access to a strong internet connection at home. It is important to integrate this option from the beginning rather than offer it as an afterthought. During our research consultations, we should look to accommodate multiple means of communication, this may include communicating verbally or over chat during the consultation or via email upon its completion. Overall, it is important for us to recognize that students come to us with a variety of needs and expectations, and we need to try our best to accommodate their preferences.

There are some elements of our instruction that may continue to present barriers to students, even when we employ UDL or UDI as a framework. Pionke advises librarians to provide opportunities for students to give feedback on instruction, either verbally or in writing, at the end of the session or afterwards, to invite students to help us understand their experience and what we can do to make the class more accessible.[12] This feedback can help us to identify and ameliorate barriers that we are creating for students in our teaching, so that we can improve our students' learning experiences. Similarly, we can seek feedback on students' experiences of research consultations, by inviting them to share feedback after a session either by email or through a standard feedback form, to allow us to recognize areas of inaccessibility in these interactions.

Conclusion

In conclusion, putting in a small amount of extra effort to ensure our live demonstrations are more accessible not only benefits students with disabilities but also those without. There is a difference between equity and equality and as information professionals charged with guiding students on their research journey it is important to prioritize accessibility in library teaching practices, both in the classroom and in research consultations. We hope that we have highlighted the intersection of accessible teaching practices in instruction and reference support. Regardless of whether we are teaching a 200-person class in-person or conducting a one-on-one research consultation online, we should prioritize the needs of our students by working to make all our teaching, including our live demonstrations, accessible.

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