

Improving Video-Conference Workshops through an Intersectionality Lens

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This paper reports on workshops developed as part of an NSF ADVANCE Partnership project focused on faculty salary equity titled Let's Talk Money (LTM). The LTM workshops are conducted via video conferencing to a mixed audience of deaf and hard-of-hearing (DHH), and hearing participants from three partner universities.

The aim is to train and support teams of administrators and faculty in using a collaborative process to build knowledge and understanding of the institutional compensation system, and take action to improve salary-related policies, perceptions, leadership skills, and community engagement. The workshops prepare the partner institutions to engage in salary equity efforts and demonstrate best practices in teamwork. Guiding principles used in creating the workshop content include

- Collaboration between diverse stakeholders
- Providing accessible and clear communication for all
- Addressing and challenging “unstated assumptions”
- Recognizing the emotions surrounding the subject of salary and equity

Over the first year of the project, the workshops presented communication and facilitation challenges with this audience. American Sign Language (ASL) interpreting within multiple breakout rooms of mixed-hearing-status participants was of varying effectiveness, and workshop facilitators struggled to attend to requests regarding interpreting in real time.

Formative assessment based on observations of the project evaluation team and open feedback channels with participants from our partner universities allowed us to quickly identify these problems and collaboratively determine ways to improve. Thus, revisions were made to the workshop design and “run of show” support documentation, including a backchannel communication method among the presentation team, reminders to enable auto-transcription as a backup for interpreting, and real-time checking on quality of ASL interpretation. These changes improved the workshop experience for all participants, not only those who are DHH. Ensuring that communication is clear supports inclusivity for everyone while paving the way for full participation and richer discussions.

Background

Creating and facilitating effective, high quality remote workshops is key to our NSF ADVANCE funded Partnership Project called Let's Talk Money: Building Community Understanding of the Institutional Compensation System (#2121930) or simply the LTM Project. This multi-year project housed within Rochester Institute of Technology (RIT) aims to significantly expand knowledge of best practices for faculty compensation to a broad and inclusive community in higher education and provide critical insights to guide future faculty compensation practices. In particular, this project extends prior RIT work (details below) to three additional campuses: Villanova University, Drexel University, and Gallaudet University. While all of these sites are private universities, they each offer distinct contexts and circumstances.

The LTM Project builds on two past NSF ADVANCE funded efforts at RIT going back fifteen years. In 2008, RIT received an NSF ADVANCE Institutional Transformation Catalyst award, Establishing the Foundation for Future Organizational Reform at RIT (#0811076), or EFFORT@RIT which identified career advancement barriers for RIT women faculty and established how well the university addressed issues in the recruitment, retention, and advancement of women faculty. Results of a faculty climate survey [1] conducted as part of the project, in conjunction with objective data review which included a salary equity study and benchmarking, led to identification of barriers in the areas of career navigation, climate, and flexibility in work/life management balance [2, 3]. The follow-on NSF ADVANCE Institutional Transformation project, Creating Opportunity Networks for Engagement and Collective Transformation: Increasing the Representation and Advancement of Women Faculty @ RIT, or AdvanceRIT (#1209115) was awarded in 2012. The goal was to increase representation, retention, and career advancement of women faculty while examining the unique challenges experienced by women faculty of color and DHH women faculty and refining interventions to address the needs of these key sub-populations [4, 5]. Significant to this project was the high level of institutional collaboration resulting in new institutional practices, which included faculty exit interviews; COACHE climate surveys; dual career program, and gender-equity salary studies [4], [6]-[9].

The LTM Project draws on the past experiences gained through developing a multi-faceted salary equity initiative while incorporating an intersectional approach in creating and executing strategies in recognition that gender, race, and ethnicity do not exist in isolation from each other and from other categories of social identity. Therefore, the project examines unique challenges experienced by women faculty of color and deaf and hard-of-hearing¹ (DHH) faculty², and refines interventions and approaches to address the needs of these key sub-populations. This paper explores how the project refined its earliest video-conference workshops by gaining valuable feedback from audience members who are DHH faculty. Improvements have led to higher-quality workshops for all participants.

Literature Review

Given the unique needs of our partner institutions, we made decisions early about providing for as full access as possible to all interaction on Zoom, our video-conferencing platform (see also [15]). Communication and interaction with and between deaf, hard-of-hearing and hearing individuals requires at a minimum ASL/English interpreting services, or speech-to-text captioning services (or both). Facilitating interaction requires additional guidelines discussed and agreed on by participants. For example, in both cases, those who receive ASL interpretation or captioning get access to the information being conveyed with a lag [16]: The language access

¹ Lowercase deaf refers to the audiological condition of not hearing, and uppercase Deaf to a particular group of deaf people who share a language (American Sign Language) and a culture [10]. The term ‘hard-of-hearing’ encompasses people with a mild-to-moderate hearing loss, deaf persons who don’t have/want a cultural affiliation with the Deaf community, or both [11].

² While ‘people-first’ language such as ‘individuals who are DHH,’ is emphasized by many advocates, terms like ‘DHH academic’ are considered acceptable because deafness is considered to be part of one’s identity in the deaf community [12]-[14].

service requires time to convey the message in a new medium. Likewise, this happens in the other direction too - where the hearing participants are waiting for interpretation into spoken English. This cannot happen effectively without making it a focus of the whole group, rather than the ones who need accommodations explicitly.

Holding meetings via video conferencing brings additional challenges to full communication access and participation [17]. It can be difficult to locate the video windows of signers and interpreters. Video conferencing tools use audio to identify and highlight the current speaker; this functionality doesn't work if the speaker is not making sound. Finally, the signing space is smaller in a video conference than in real life, and the size of the signer's window can make it difficult to comprehend signs.

It is worth noting that the background knowledge and experience of interpreters can impact accuracy and effectiveness of the interpreted communication. This project required familiarity with some complex topics, such as financial models, compensation systems, faculty equity and workloads, etc. One strategy is to have designated interpreter assignments - with the same interpreters scheduled over a semester or a year of the project. This model is also used in other settings where background and content knowledge matter, such as medical settings [18], academic settings [19], and professional settings [20]. In this project, knowing the context of subject matter as well as previous meetings was important for effective ongoing communication.

Lastly, interpretation is a complex process for interpreters of both spoken languages and signed languages. Even a highly-skilled and experienced interpreter can and will make mistakes, called miscues, that distort the intended message. The Cokely Model [21] groups miscues into five categories: *omissions*, *additions*, *substitutions*, *intrusions*, and *anomalies*. Omissions occur when information from the original message is dropped during interpretation. An addition is when the interpreter mistakenly includes their own input. If a portion of the message is inaccurately changed, that is considered a substitution. When features of the source language appear in the target language message, an intrusion has occurred. Finally, meaningless interpretation is the characterization of an anomaly. For this project, paying attention to identifying and correcting miscues was a crucial part of making meetings successful.

Communication Challenges in the First Workshop

During the first cohort workshop, sign language interpreters were hired from an independent agency as opposed to RIT staff interpreters for whom academic classes are prioritized. Four interpreters were assigned to interpret the workshop. This worked well in the main session, but communication broke down in the breakout rooms. Participants were randomly assigned to breakout rooms with one interpreter assigned to each. In one breakout room, the interpreter repeatedly inserted *addition* miscues, injecting their own opinions and narrative, and the DHH participants could not meaningfully participate in the breakout sessions. Once participants are moved to the breakout session on Zoom, auto-captions which often are a back-up mechanism both for catching missed items in interpretation and checking the quality of interpretation, are not available, leaving the deaf participants with no communication.

The DHH participants tried to reach the cohort workshop moderators via multiple channels (direct message, email) to remove this interpreter. The moderator did get the message during the session. Since the random assignment to breakout rooms resulted in some rooms with no DHH participants, they were able to place another interpreter in the breakout room. However, they did not inform the new interpreter to take over for the problematic interpreter. In addition, the DHH participants did not get acknowledgement that the situation was being addressed and so were not able to offer real-time feedback on the best course of action. It became so dire that the DHH participants had to say to the interpreters, “Please change interpreters now.”

Strategy Development Post Workshop 1

The Zoom workshop experience of our DHH participants was clearly different from that of our hearing participants. The project team had to acknowledge that the design and facilitation of the workshop put the DHH participants at a disadvantage. To effectively address these challenges, the moderators sent a debriefing email to DHH participants soon after the cohort workshop to discuss what should have been done. A back channel system using texts was set up and continuous check-in about the quality of interpreters was put in place to prevent the situation from happening again. The debriefing email to the DHH participants also gathered feedback on their experience and their input in developing strategies to better facilitate future Zoom sessions. At a Leadership Team meeting following the workshop, the project evaluators shared additional feedback from the post-event survey that further emphasized the impact of the design of interactive activities which affected interpretation of the shared information, and thus participation of DHH participants. These data indicated that the original design of the interactive activities hindered communication, engagement, and understanding of what was being requested from all participants. Feedback was also provided that communication could be enhanced by ensuring that speakers and interpreters were “spotlighted” in the Zoom so all could better follow discussion.

In the next workshop, a number of the interpretation issues were resolved. However, post-event evaluation revealed that DHH participants continued to express concern about interpreting *substitution* miscues, where vocabulary signed by the DHH participants was voiced with a lower level of sophistication and understanding of the context. This illustrates one of the many consequences of the nationwide shortage of skilled ASL interpreters. Following the meeting, members of the project leadership team shared observations that as workshop facilitators we were still using approaches oriented towards hearing participants who don't have to attend to multiple visual inputs to access information, such as slides and ASL interpretation. We tended to immediately start talking over complex, information-rich slides without allowing time for participants to read the slides, narrate emergent findings of participants' writing-based collaboration tasks (e.g. updating a digital whiteboard), and not effectively moderating breakout room discussion to allow for the participation of all. This was a critical juncture for the project to apply a more intersectional and intentional design to workshops that attended to structural, process, and interpersonal dynamics that were resulting in different outcomes and experiences for participants in our workshops. In addition to enhancing inclusion for DHH participants, we acknowledged that slowing down and giving time for all participants to engage with the information presented in the slides and discussion would likely lead to better engagement and understanding for all.

For the fall 2022 workshops, the leadership team continued to refine their thinking about how best to support activities with mixed-hearing status groups. In alignment with our strategic goals to ensure each campus team was making progress on their campus self-assessment and organizational action plans, we moved towards longer campus-specific breakout rooms that were supported by guided workbooks, rather than facilitation. This allowed teams to: a) take leadership of their work on the project; b) deepen internal team communications on these sensitive topics of compensation and equity; and, c) allowed the team with DHH participants to communicate at their own pace - recognizing that interpretation for facilitators was taking time away from team dialogue. Interpreters were still embedded in the breakout room in case team members needed or wanted facilitator support. Moving forward, we will want to start re-engaging in cross-team, mixed hearing status groups to build community, and will continue to engage our DHH participants to ensure that we are designing experiences that are agnostic of hearing status to stimulate the same level of engagement among all participants.

During our most recent session in 2023, the DHH participants asked us to instruct the interpreters to use Signed English (signing word for word) rather than ASL (translating the concept into the syntax and grammar of ASL) because of the specific vocabulary, complex concepts and large amount of content on the slides. In the post-workshop survey, this was reiterated by one participant who indicated that the session could have been improved with more “high register” signing, meaning terms, acronyms and jargon appropriate to the topic. This type of input is something that we can use to prepare future interpreters who work with our project.

Outcomes

After each cohort session, the evaluators send a short survey to attendees. There are a set of questions asked every survey so that we can compare changes over time. In the first session (February 2022) there was a large number of participants who shared comments when asked “what could be improved about the session today?” The comments that were received about the experiences of our DHH participants included:

- Provide clear guidelines especially for the interpreters. Because during the breakout sessions I was totally lost.
- This comment is more related to accessibility. One of the interpreters was not qualified to do the job and wasn't removed quickly enough as asked so as a result wasn't able to participate in one break-out session. Also, speakers need to be spotlighted so that we know who is talking at a certain time.
- My rating for the breakout session is entirely related to the ASL interpreter assigned. Unfortunately the interpreter was not qualified and impeded effective communication. Worse, [they] probably created a poor understanding of the deaf participants who, not surprisingly, were less than eager to participate because they lacked confidence in effective communication.

In the second session (May 2022) evaluation, only one participant described concerns about the sign language interpretation, but they were very specific about what was going wrong.

- The quality of the interpreters was mixed, which made it frustrating for me to participate. My ASL fluent colleagues understood me; the language and word choices (often

incorrect) by the interpreters made those of us who signed appear to be less sophisticated and knowledgeable than our comments indicated. The interpreter's lack of knowledge of higher educational language contributed to this. (I'm hard of hearing and have access to spoken communication -- what appeared on the auto-captioning was close to what was said in English from the ASL.) It is very common that the interpreter's vocabulary is less sophisticated than the deaf professional -- this is not my complaint. What I am concerned about is the significant gap between the interpretation into English from the ASL. Many words and signs were missed (for example -- I mentioned not feeling well because I was recovering from covid; the interpreter voiced that I had just woken up; a colleague talking about benchmark cohorts signed medical school, this was voiced as middle school. To be fair, earlier a hearing participant had mentioned middle school salaries, but this was in a very different context). My dean used the adjective "unique" several times, even fingerspelling it to be sure that it was captured -- the interpreter just skipped over it. Many other errors occurred, to the point where I was distracted from the discussion and ended up having to type my comments to be sure they were accurately represented.

For the third and fourth sessions (September and November 2022), there were no comments about interpreters or differential impacts of the facilitation for DHH colleagues. But as noted above, in February 2023 participants mentioned both in real-time during the session and in the post-workshop survey a preference for signed English to capture the specific language used in the presentation and discussions. This further demonstrates the need for continual attention to communication.

Discussion

Because they are regularly excluded from spontaneous and informal conversations, DHH professionals may experience marginalization and isolation [22], [23]. On top of that, DHH individuals often find their intelligence and abilities questioned by hearing colleagues [24], [25]. This perception is compounded by interpreting miscues, especially substitution of less sophisticated vocabulary in a professional meeting. Miscues, and the resulting negative perceptions, may also be exacerbated by DHH professionals' use of ASL dialects such as Black American Sign if interpreters are not knowledgeable or experienced in these variations.

As our team struggled with the communication barriers we encountered in our first workshop, we embraced a shift in mindset beyond providing access as required by the Americans with Disabilities Act (ADA) [15]. The ADA guarantees basic access to information, but it does not address interaction and collaboration dynamics. We discovered first-hand that providing ASL interpreters did not guarantee full participation of all participants in our Zoom workshop.

All institutions of higher education can benefit from focusing on inclusion, rather than accommodation, with specific attention to their own demographics and student and faculty needs. With this mindset, classrooms, committee meetings, and other collaborative spaces can become communities of learning in which the contributions of all members are valued.

Recommendations & Conclusions

We offer some suggestions to modify how you use the video conferencing platform and facilitate meetings (see also [26]) to be inclusive of deaf and hard of hearing participants.

- Consider how you are using the video conferencing technology and provide help for participants such as sending slides in advance for offline viewing, and providing instructions for consistently using the hand-raising tool.
- Think about how you are using the real estate of the screen. Do you need screen share? Use the spotlight feature for presenters, and consider having non-speakers turn their videos off.
- Consider adding live speech-to-text captioning services. If you have interpreters, enable auto-captions at the start of the meeting so that participants have the option of using them as a back-up to interpretation.
- Provide post meeting transcripts to reduce the anxiety of possible missing information for participants.
- Moderate turn-taking (via hand-raising, chat request, etc.) so that all participants have the same opportunity to speak.
- Set up a ground rule for the meeting where participants identify themselves before speaking. This reduces cognitive load for the DHH participants as well as ASL interpreters.
- Create a backchannel communication method (e.g. direct message in the video conferencing, cell phone text) for participants to contact facilitators and raise concerns in real-time.
- Give participants time to read text-heavy or information-rich slides before providing context or other narration.
- Clearly structure transitions from independent, written work to large group discussion to ensure all participants are able to engage in all parts of the activity (e.g., clearly communicate the time at which independent work will end and group discussion will begin so that DHH participants don't miss the call back to order).
- Consider whether active facilitation by hearing individuals is hindering communication among DHH participants, and identify alternative strategies to support group work such as workbooks, digital whiteboards, or other tools that allow participants to self-facilitate.
- We also recommend that for ongoing meetings related to a project, make an effort to use the same interpreting team so they can build their knowledge of the project and participants.

We also recognize that the video conferencing platform may need to be encouraged to make software changes to increase inclusion for DHH users and improve communication for all participants. Our recommendations to those who design video-communication software are listed below:

- Allow the active speaker to be identified through a certain type of visual motion in addition to sound.
- Implement a hold/pause button that helps all attendees stop talking for a few seconds to ensure that interpreters can transition and catch up.
- Create a visual reminder for speakers to pause in between slides and/or speakers to ensure all audience members can engage with all the content.
- Enable auto-captions or transcription within breakout rooms. Participants use these tools for a variety of purposes, and need them in small groups and large groups. DHH

participants use auto-captions and transcription to verify the accuracy of voiced interpretation.

- Enable participants more options in configuring and tailoring the presentation of screen sharing and individual video streams. This will enable DHH users to have more control over their experience in the platform.
- Provide ways for breakout room participants to directly message meeting hosts and cohosts while in breakout rooms, not just generally “request help”. This would support users who may need help changing or removing interpreters or participants who are disruptive, interrupting bias or other marginalizing behaviors by colleagues or classmates, and getting quick guidance on tasks or points of clarification.

Communication is essential to teamwork and requires attention to be successful. In addition to our recommendation above, we remind readers of the importance of engaging with your participants in video conferencing events as partners, using a mindset that is intentional and collaborative [15]. While we may not be able to anticipate the individual needs of every participant, we can inquire about their needs in advance, acknowledge difficulties in the moment, request feedback, and continually strive to improve. We found that by incorporating approaches that meet the needs of our DHH colleagues, we can improve access to communication for all.

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