Suggested Practices Towards an Inclusive, Synchronous Lecture

This is a living document (shared under CC BY-NC 4.0) that lists conversations, designs, decisions, and actions that can be taken as efforts to make an inclusive, synchronous lecture. The suggestions come from concerned, knowledgeable individuals at both Accessing Higher Ground (AHG) 2023 in the session *"Keeping it Old School? Move it in a New Direction! Strategies for an Inclusive, Synchronous Lecture Delivery"*, and the Conference on Meaningful Living and Learning in a Digital World 2025 in the session *"Old Meets New: Strategies for an Inclusive, Synchronous Lecture Delivery."* **Many of the suggestions were identified by the sessions' attendees during the conferences.** See the References section for other sources of inspiration.

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Before the Lecture

Communication

Communicate in writing to students/attendees via a course syllabus, course site, events platform, and/or email. Reiterate any notice in-person or synchronously online whenever possible.

- **Aim to get to know your student participants and/or attendees. Learn about their preferences.** This may impact interactions, setup, mode of delivery, activities, or even scheduling. For instance, a daytime lecture with a special guest may not be

appropriate if most students are working in 9 to 5 jobs, so an evening session or even a second opportunity (at a different time) could be considered.

- o **If you are unsure how to address a student, ask them.**

- o **If you are unsure of a student's comfort in interaction (such as participating in group activities or, if online, using their microphone and camera), ask them**. *Note that some students may not be comfortable with even something as seemingly "normal" as eye contact due to diversity in cultural norms or neural differences.*

- o **State what you can provide up front (live captioning, special seating, etc.) but then ask your students/attendees if they have any *other* needs or requests,** separate from documented accommodations that you *must* provide.

- **Plan for accommodations.** Learn the support systems the school, event, or facility has in place to help faculty/presenters in meeting any documented accommodations, especially those that cannot be addressed impromptu.

- o **Communicate to all students/attendees where and how they can access services** such as student disability services, mental health resources, etc.

- o **Make the request on behalf of all students/attendees for assistive listening systems** if the room is not equipped.

- **Share reasonable ground rules and expectations** for discussion, attendance, and other interactions. These expectations can be co-authored with the students.

- o **For online students/attendees, set expectations regarding webcams.** In most instances, cameras should not be required for full participation. (There is a myriad of reasons why someone may not want to or cannot stream their video.) If cameras *are* required, make the reason why explicit but offer an alternative if this requirement cannot be met.

- o **For in-room students/attendees, set expectations regarding appropriate/acceptable use of personal devices** (smart phones, earplugs, headphones, etc.) to allow for engagement while minimizing potential distractions.

- o **Provide students/attendees with expectations regarding the duration of "seated time" (between breaks)** but acknowledge that this may not be an option for some.
    - If they are not allowed to move with relative freedom during the seated time, provide a clear rationale. Also ask that they let you know if there are concerns.

- **Provide students/attendees notice of any "small group" or other planned social interactions during the lecture**. Ask students to let you know if there are any concerns.

- **Provide notice regarding the physical room** including:
    - o **proximity to bathrooms and elevators.** Link syllabus or event digital platform to accessible building maps, when available.

- **temperature**, specifying the expectation to dress for comfort (i.e., layers) in an otherwise formal event.

- **Include Disability Services Office in the user requirements and/or procurement process for any required software or other tech** used within a lecture's activities.

- **Distribute any supporting files (including slides, if they are used) in advance so the participants can make sure they have access during the presentation**. Access may be unintentionally restricted by broken links, wrong file permissions, or failure to meet [WCAG (Web Content Accessibility Guidelines) success criteria](#).

- **Provide or reference resources for background knowledge, clarifying terminology, etc., so everyone can experience the presentation with the same level of understanding**. This opportunity for scaffolded learning is an important part of [Universal Design for Learning (UDL),](#) and understanding is an important part of access.

- **Work with interpreters and captioners** giving them materials in advance and explain acronyms, names, and domain specific terminology.

Design
Media
- **For all media used in the presentation, make sure to follow the best practices for [accessible digital materials](#), aligning with WCAG success criteria**.
  - Make certain any slides and supporting files are digitally accessible.

- **Limit the amount of text on a slide** so it is easier for attendees to both listen to the speaker and read any text.

- **Use large text size and simple, true-type fonts** so text can be read from the back of the venue as well as understood, without magnification, by the most people on personal devices.

- **Avoid "transitions" and animations,** if possible, which can serve as distractions to some attendees and potentially cause seizures in others.

- **Avoid using a lot of emojis and avoid using them without consideration of context**. Standard [Unicode emojis](#) all have meanings that are translated when read by assistive technologies such as screen readers. In other words, they are not decorative.

- **Choose imagery with purpose** including broad representation (age, gender, ethnicity, body size, physical abilities, "family", etc.), within context of and relevance to the topic. Make sure to avoid tokenism. See [Curated Collection of Online Image Repositories Considering Diversity](#).

- **Add shortened URLs as text near any QR code images** used in slides.

- **Make QR codes at least one-third the height of any projected slide.**

- **If sharing a website on a slide, the (shortened) URL should be displayed as it *is* meaningful text if the slide is only being presented** synchronously without any other artifacts to pass along URL.

- **Avoid moving text and "Word art" and try to stick to simple fonts** (with little to no variation in font styles) to make reading easier for everyone, especially dyslexic attendees.

- **Check for readability of any slides on different devices and screen sizes**.

Environment

- **Take the opportunity to familiarize yourself with the environment (online tool and/or physical room) from different perspectives.**
    - Take the role of a student/attendee in the same classroom or online platform and learn about potential frustrations or other experiential considerations.

- **In a physical classroom or other non-virtual learning space, plan for virtual participants to be integrated as fully as possible with in-person participants.** Have a camera and microphone that captures the students in the classroom, plus a separate display or screen plus speaker that can project the virtual participants to the students in the classroom.

- **Familiarize yourself with the technologies and get support to operate them**, as needed. This includes accessibility features that you might manage, such as turning on automatic captioning or using a lavalier microphone for greater audible clarity.

- **Prepare the space from which you are presenting by removing or reducing environmental distractions** including background noise and poor lighting.

- **Know your physical classroom or other non-virtual learning space and plan for flexible and accessible seating. Your environment should allow for students/attendees of varied sizes with different needs plus their personal belongings and/or companions** (including medical devices, note takers, guide dogs, etc.) Work with facilities and student support services, if necessary, to make sure there are equitable options for individuals with larger bodies, canes or other physical assistive devices, low vision, impaired hearing, etc. Consider:
    - Stands and hooks for canes.
    - Adequate floor and/or seating space.
    - Storage space for book bags or other personal belongings.
    - Line-of-sight.
    - Proximity to audio sources (i.e. speakers).

- **Provide seating for anyone who is presenting** (faculty, students, SMEs). Allow lecturers to feel comfortable speaking and facilitating without standing.
    - Give all lecturers, including students, what they need to succeed without having to ask.

- **Provide assistive listening systems even at temporary events and conferences** (as required by the ADA whenever amplified sound is provided)
    - **Make using assistive listening the norm rather than the exception.** Clearer sound helps everyone, not just students/attendees with hearing disabilities.

Build

- **Create and share a reference guide for the course and/or lecture** with the students that they can use for scaffolded support. Cite this guide during the lecture as you come across concepts and terminology that serve as foundations in context.

- **Prepare an outline for yourself to maintain the logical flow of the presentation**. This helps keep things on track, providing clarity toward understanding.

- **Incorporate an agenda or outline plus objectives in the initial part of the lecture** to engage students/attendees so they are more readily invested in the activity.

- **Consider planned activities** knowing participants will have variability in communication, mobility, and resources.
  - **Allow students/attendees to participate and contribute in multiple modalities** (e.g., text vs. spoken). In-class lectures could include a digital backchannel platform – such as [Slido](#) – as a means to communicate, similar to a chat panel in an online meeting platform.

- **Choose content authorship and scholarship, i.e., source information, with purpose and dismantle preconceived notions of "who belongs" in a discipline.** Aim to incorporate diverse voices, including those from traditionally marginalized or otherwise underrepresented groups. This includes imagery, readings, videos, and activities.

- **Review and revise any examples and activities used in the lecture so they are relevant to the current term, discipline, and student composition.**

- **Embrace UDL (Universal Design for Learning)** so there are fewer reasons to revise, remediate, or otherwise alter the lecture to meet a specific accommodation. Some people will require alternate forms of the materials; others will prefer the options.
  - **Consider providing the same information using different means of representation**. If you are lecturing in a didactic manner with slides, find or create texts (readings), videos, and/or digital simulations that will allow students to choose the pathway that suits them best while meeting the lecture's same objectives.
  - **Allow both passive and active learning in the lecture,** such as providing multiple ways for students to participate and/or demonstrate their knowledge.

- **Consider eliminating timed activities,** such as "quick response" or gamified polls, to allow for participants' variability in responding due to biological, neurological, or psychological reasons; available resources; and even environments (such as secure online connections or a quiet space).

- **Plan opportunities to build community between and within student/attendee groups to gain perspectives and build inclusive relations.** Additionally, building this community goes toward combining efforts, sharing resources, and deepening learning (as communities of inquiry).

During the Lecture

Management/Set-up

- **Keep background noise to a minimum.**

- **Make certain lighting is sufficient for any in-person attendees taking notes, writing, or reading.**
  - **Label light switches in classrooms so users can control lighting** for specific areas of the room.

- **Make sure the luminosity of any projections is sufficient** for the environment (taking into consideration sunshine, room lighting, etc.)

- **Avoid having a light source behind you** which usually puts your face in a shadow, making it difficult for anyone who might rely on facial cues, including lip-readers.

- **Record your lecture presentation** so it can be transcribed, reviewed, and experienced without distraction, or otherwise used as a learning resource.

- **In an online lecture, do not prompt virtual students/attendees to respond or participate in the platform's chat panel all at the same time.** This is a common ice breaker activity within Zoom and should be avoided, especially with many (>20) attendees. Many individuals, including the attendee dependent upon a screen reader, will not be able to quickly and easily get through the vast amount of information. Instead, provide a link to use an accessible online option that is outside the platform (such as a Word document), which can be referred to later.

- **Consider having a teaching assistant or other individual monitor chat and/or Q & A in a virtual meeting** to make certain all voices are welcome and heard.

- **Provide live transcription and/or captioning as a default with instructions on how to obtain translations,** if available (e.g., Microsoft PowerPoint online).

Delivery

- **Introduce yourself,** including your pronouns and physical description if you are comfortable, as a matter of setting a welcoming tone and encouraging others to share similarly.

- **Repeat objectives, ground rules and expectations** at the start of the lecture.

- **If virtual, encourage but do not demand participants share their camera's video,** unless required for full participation in the activity. (Share expectations beforehand.)

- **If there is more than a single speaker, state names first before speaking** to identify the individual(s) for captioners and audience.

- **Acknowledge virtual attendees,** giving them as much attention as in-person attendees.

- **Be accepting of differences in social norms** including lack of eye contact, unexplained sounds, or movements such as grunts or twitching, and more.

- **Ask participants to assist in keeping distractions to a minimum** by silencing cell phones and not having personal conversations in the room.

- **Follow the [Best Practices in JEDI](#)**, including setting the tone and leading by example. Avoid drawing undue and unnecessary attention to a student/attendee or situation.

  - **Connect with students by being vulnerable and/or sharing your vulnerabilities if you're comfortable.**

  - **Use inclusive language** thinking about the context, focusing on the persons, being respectful of the participants, etc.
    - **For students and guests, provide alternatives to non-inclusive language** (if it's used) in a manner that educates and informs, rather than criticizes or shames.

    - **Avoid outdated terminology and phrases,** which might be rooted in discrimination, hate, fear, or an anxiety-filled past. For example, "guys", "sold down the river", "spirit animal", "crazies", etc.

    - **Avoid obscure, ethnocentric, slang, and pop culture references** unless providing the meaning and having direct relevance to the topic.

    - **Avoid polarizing examples and terminology** such as overgeneralization, extreme comparisons, and word choices that may induce strong emotion (and extremely different reactions) without encouraging critical thinking. For example, instead of referring to "needy" people, you can refer to individuals who would benefit from support systems or, depending on the context, individuals seeking attention.

  - **Consider acknowledging the land from which you are presenting** without being performative. See this [Guide to Indigenous Land Acknowledgement](#) for guidance regarding non-performative land recognition.

- **Speak toward the audience and/or camera and avoid moving around too much** to assist lip-readers and reduce distractions.
  - Make certain that everyone has a clear line of sight (unobstructed view) from where they are positioned. (This includes seeing your face online when you are speaking and seeing your face plus any projection or demonstration in a classroom.)

- **Always use a microphone** if one is available. No matter how much you think you can project your voice, not everyone can hear you.
  - This is especially important for someone who may have an assisted listening device (ALD), an undocumented hearing disability, or even those who may benefit by an additional means of keeping focus.

- **Speak clearly and evenly**, with a volume that considers the furthest person in a room, and at a pace that considers translations (automated or human). This benefits attendees who are not close to the lecturer, as well as attendees with hearing, vision, and information processing disabilities.

- **Take the time to explain a concept or spell out an acronym the first time it is used**, especially if it may be unfamiliar to your audience.

- **Avoid technical terms** (if not specific to or expected of the attendees).

- **Do not make presumptions** regarding what students/attendees bring to that time and place, including phrasing or presenting something as ubiquitous knowledge or a universal perspective. This could be something as innocuous as using the American concept of a "fireside chat", popularized in the 1930s, or a politically charged statement said in passing. Doing so may be intimidating or aggressive, and even prevent questions from being asked.

- **Narrate all visuals (still and animated)** to provide the full experience to someone who cannot clearly see a presentation.
  - **Verbalize complex equations or other graphics being displayed** so they can be effectively communicated to anyone with a visual impairment and understood better by everyone. For example, instead of saying, "Let's discuss this heat map," try saying, "Let's discuss this heat map of Maryland that shows population health risk scores across the state."
  - **Verbalize all projected words and phrases** if the same communication is not otherwise narrated. For example, it is OK to simply read the slide aloud if you are not going to be relaying the same information in your discussion.
  - **Relay key points of all graphics, including any text on a projected image**, conveying information necessary to fully comprehend the presentation.
  - **Direct audience attention to the parts of projected images that should receive focus and describe the details**. For example, "In this microscopic image, focus your attention to the right side of this slide, where I'd like us to talk about the magnified cross-sections of bone…."
  - **Describe any animations** that are not purely decorative. **Do *not* use flashing media,** which may induce seizures.
  - **Describe annotations (i.e., whiteboard activities) and other actions that you perform**.
    - For annotations, describe what is being modified and how. If a specific tool, such as an X or a star, is selected, include the tool in your description.
    - If you are going to stop projecting, sharing your screen, or opt to "hide" a slide, state this. Also announce when you will start sharing again.

- **Involve students/attendees as much as practical in lecture flow**, allowing them to self-advocate, anonymously if needed. The appropriate method, conversational or more "turn based", may depend on the modality of the lecture and the size of the class or gathering.

- **Slow down, pausing between topics and/or slides,** to allow captioners, interpreters, and individuals with information processing to "keep pace."

- **When asking if there are any questions, pause and give students time to process and think;** don't be afraid of the quiet.

- **Consider interspersing opportunities for active learning during "breaks"** to allow students/attendees to make connections to the content both in the discipline and authentic connections in their lives.

- Breaks also allow for stretching, movement, and other biological and physiological needs.
  - Additionally, breaks allow for cognitive processing, translations (language or assistive technology), and corresponding interaction among faculty, students, and/or relevant resources such as comprehension checks or concept maps.

- **Take opportunities to recap the lecture from time to time.** This would be a good segue for breaks for questions as well as pacing.

- **Monitor student engagement, well-being, and behaviors** both positive and distracting/unwelcome; seek help if you are concerned.

- **Actively solicit input from the students/attendees** including feedback on delivery and clarity of content.
  - **Be responsive to students/attendees' direct and implied needs**.

After the Lecture

Communication

- **Encourage and welcome feedback on your presentation** through exit tickets, office hours, or open venues of communication. Reflect and act on that feedback, listening carefully for concerns that may not be related to your teaching, but also those comments that indicate an area for your own improvement in facilitation.

  - **Survey students/attendees** to learn about their experience including what could be improved or could have been done differently.

- **Reach out personally to individual students/attendees who seemed to have "low" engagement/participation.** Discover how you might best support them. This may be an opportunity for you to learn from them, for you to refer them to external resources, and/or for you to request assistance in helping you to help your students.

- **Do not have "private" or separate conversations that continue or expand the learning activity** when everyone can and should benefit from what is being shared. Often learning is continued in a social or other space (in person or online) that is not designed to be inclusive; make sure that pertinent conversations are redirected to the entire class or group. This can be achieved in a discussion forum or by setting aside time in the next synchronous gathering.

- **Communicate *again* to all students/attendees where and how they can access services** such as student disability services, mental health resources, etc.

Artifacts

- **Provide accessible recordings** in an easy-to-reach, standard online location. Avoid password-protected sites, if possible. In a course site, share lecture resources in a predictable manner on the course/learning management system (i.e., standard navigation to these resources).

- **Provide both captions and transcripts for the recordings.**

- o **Provide audio descriptions with transcripts and/or other text equivalent for any visuals** (static image or activities) that were not picked up in the transcript so it can be understood by anyone who cannot see the recorded lecture.

- **Make sure to re-share (or provide) any supporting files (including slides, if they are used) with the lecture's recording** along with contact information in case there are questions.

- **Build and share an FAQ or glossary** to address concepts that were muddy or weak. It can be shared with current and future students for mutual understanding.

References

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