Tips for Online Meetings with AAC Users, by AAC Users

Version 1.0 - August 2024

(shorter version available at: https://lnkfi.re/inclmtng)

Preface

People who need and use **augmentative and alternative communication (AAC)** to be heard and understood are often left out or spoken over in virtual / online meetings. This guide contains tips and lessons learned from over five years of hosting and participating in online meetings and webinars for people with very diverse speech-related communication disabilities, including AAC users.

CommunicationFIRST is the nation's only nonprofit organization dedicated to protecting and advancing the civil rights of the estimated 5 million people who cannot rely on speech alone to be heard and understood in the United States, regardless of disability or other condition, and regardless of age of onset. CommunicationFIRST is led by people who use a broad variety of communication methods, including brain computer interface, speech-generating devices, typing, laser pointers, alphabet boards, human revoicers, and more. We are learning how to create a more even communication playing field for people with a wide variety of speech-related disabilities and communication access needs in virtual meetings and webinars.

We thank the over 20 people who contributed to this resource, especially our outside reviewers.

The language choices made within this guide are deliberate. To learn more about why we use this language, visit our style guide, The Words We Use.

We hope the ideas and resources in this guide will support you in maximizing your own and others' meaningful access and inclusion of people with speech-related disabilities in virtual settings. We will update this guide as we learn more and as technology use changes. If you have feedback or suggestions for the next version, please email info@communicationfirst.org.

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Key Takeaways

This guide contains detailed suggestions on how to improve online meeting access for augmentative and alternative communication (AAC) users and others using speech-related meeting accommodations. Click on the links in this section to jump directly to this guide's detailed section on that topic.

Give us the time we need.

Most AAC users communicate more slowly than people who can use speech fluently to be understood. The average non-speech-disabled speaker of English speaks 125-150 words per minute; it is not uncommon for someone who uses AAC to communicate **5-10 words per minute**.

- **Consider an asynchronous or a hybrid option.** The pace of most synchronous (real-time) meetings favors people who can speak fluently. That disadvantages us.[1] Asynchronous meetings (e.g., by email or instant messaging) allow us to take as much time as we need to respond, and don't require us to be ready to communicate at a specific time, among other benefits. If asynchronous communication can achieve the purpose of the meeting, consider offering it as an option or as an alternative.

- Be respectful **while we are preparing our message.** If you see or hear that an AAC user is typing, spelling, programming, or otherwise composing their message, wait for them to finish before you say anything more. Give us the full opportunity to take our turn, ensure that the conversation doesn't move on without us, and allow us to concentrate. And above all, **be patient. Embrace the silence. It's only awkward if you make it so.**

- Avoid surprises **whenever possible, and give us time to prepare.** Schedule at least two weeks in advance whenever possible. Plan and share what you can in advance, including agendas, slides, or even "run of show" documents. Make sure everyone understands how to get in to the meeting. Share contact information (text or email format) so if someone hits a snag, help is available.

Keep in mind that many of us have motor disabilities.

The clicks, taps, swipes, and keyboard presses involved in virtual meetings may present barriers to anyone with a motor disability, but there are ways to lessen the load.

[1] We write these tips as AAC users ourselves, but we do not claim to represent all AAC users or all kinds of AAC. Because of this, we alternate between the use of second person (using words like "us," "we," and "our") and third person (using words like "AAC users" and "participants").

- **Require as few motor movements as possible to participate in the meeting.** For example, even if you have sent out a calendar marker with the meeting link, send out a reminder email with the link at the beginning of your email, not the end, to eliminate the need to scroll or double click on a Zoom invitation. Never require participants to manually enter a passcode to get into the meeting. There are other ways to ensure security.

- **Ignore accidental motor movements.** For example, we may send a chat message before we are done. An easy rule of thumb: if we're still typing, we're still talking, and there's no need to point out the mistake.

- **Don't expect the same communication norms from everyone in the meeting.** Gestures and expressions such as nodding or shaking their head, raising their hand, giving a thumbs up, or smiling may be impossible for some. Clicking the "raise hand" button to speak, clicking on a link in chat, or adjusting a camera may also be out of the question.

Keep in mind that many of us have cognitive disabilities.

We may need extra time to process or consider new information, figure out what we think, and articulate those thoughts. It may be difficult for us to process a lot of information or multiple topics at once. Giving us time and space to process gives us a better chance to participate equally.

- **Share meeting materials as early as possible.** Send the agenda, questions, or slides a few days or weeks in advance. For most of us, a day or two won't be enough time. At best, we'll be unprepared or unable to meaningfully participate; at worst, we'll be actively distressed and dysregulated by the lack of information, pace, and expectations set even before the meeting starts.

- **Offer pre-meeting and post-meeting multi-format sessions for anyone who might benefit.** Pre- and post-meeting exchanges provide more time to process and ask questions about the meeting topics and agenda, and will help us get familiar with the platform. For example, Zoom now has an asynchronous chat where participants can chat prior to a meeting, during a meeting, and after a meeting where the whole conversation is visible the whole time.

Understand speechism and speech privilege; be proactive in leveling the playing field.

It takes time and effort for most people who use AAC to communicate with language. Even with that time and effort, there may be barriers we cannot surmount on our own.

- **If you have easy access to speech, use it to make space for us.** Notice when we are being spoken over, and use your privilege to help make timely space for us. You can politely pause the group conversation to make space for your fellow attendees with phrases like: "Hang on, I think Bob is typing," "Were you going to say something, Jordyn?" and "Let's wait until

Tim is done, please." This can help model respectful behavior and can go a long way. Take the time to enforce any established meeting rules or norms to ensure our equitable collaboration, like reading the chat box in real time, before the next speaker begins to speak. If you feel our ideas are not getting as much attention, time, or space as ideas from other participants, take the time to highlight them. Understand the role of speechism in meetings. Use your speech privilege to privilege us.

- **Appoint a communication access monitor.** An access monitor reads the chat aloud to ensure that people who cannot read the chat themselves have access to what's being said; to ensure that people who are using the chat to communicate are heard and understood, not ignored; and to help ensure that points are being made before the discussion moves on to a different topic. A communication access monitor should also pay attention to who is participating and who is not, and make sure that everyone has the time and access they need to participate. They might also provide descriptions of anything that is happening visually during the meeting (such as someone who is nodding their head in agreement, laughing, or giving a thumbs up), ask people to pause discussion while someone is typing, and turn cameras and microphones off and on as needed. It's best to appoint a person who has no other role (like taking notes) that may distract them.

- **Never expect people to fully address an issue on the spot.** Many of us need time to process and think, to decide on our opinion, to compose our responses, and to type or otherwise communicate our responses in a way others can understand. Prepare well. Whenever possible, share questions and discussion topics before a meeting, and always allow for the possibility of receiving (and engaging with) ideas and thoughts after the meeting in a variety of ways. Any vote or important decision should not be rushed, and may be better concluded by asynchronous discussion and voting or by consensus.

Don't let accessibility be an afterthought.

It's standard practice to ask attendees about their accessibility needs, but the onus shouldn't have to be on us. Meetings can be designed in a way that by default includes and allows for multiple means of access, communication, and participation, so that accommodations may not be needed at all.

- **Don't assume that what's worked before will work at the next meeting.** Work collaboratively with participants to consider their access needs and what platform is most accessible for them and other participants. Be flexible, and respect the strategies participants have already developed. Plan for the possibility of conflicting access needs.

- **Think about *everyone* who's attending**, especially when planning a public webinar. Plan (and budget) for external access providers, like sign language interpreters, spoken language interpreters, and CART providers to ensure accurate captions. Think about how

to share documents and how to best share screen real estate. Talk through your ground rules and make sure everyone is on the same page with them.

- **Ask, ask, ask.** As with all things accessibility and all things human, **there is no substitute for direct communication.** No tips or guidelines will be accurate and helpful for every single person with a speech disability. The same strategy may be an indispensable access measure for one person and an obstacle to another. Use this guide to help you generate ideas, not to dictate a single path. AAC users are only human, and they may not have all the answers. Treat us as equal partners with you in this process.

Tech Accessibility

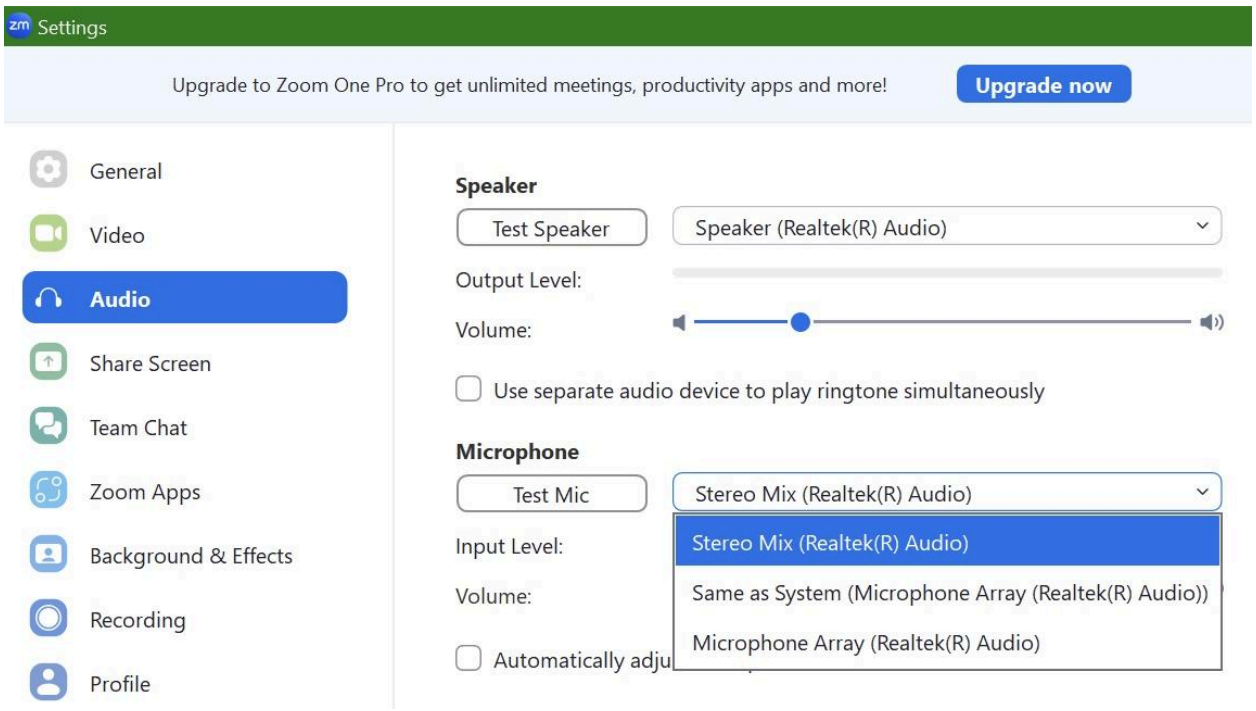
Using AAC in a Digital Environment

There are many kinds of AAC, and each one interfaces with technology differently. An individual user or their support person may already know the best way to use their AAC in a digital setting.

Speech-generating devices (SGDs). As long as the SGD is separate from the computer, the SGD's audio can be picked up by the computer's microphone in the same manner as speech. This is true for traditional SGDs and tablet applications (provided the AAC user is accessing the meeting on a different device).

Other SGDs may run on the same device (such as a computer or tablet) as the meeting. Since modern microphones usually attempt to exclude the user's speaker audio from their microphone input, this can make for some technical difficulties if you aren't prepared.

AAC users accessing a meeting and AAC software on the same device should change the program's settings (e.g., Zoom) so that it uses their device's speaker as the source of their audio, instead of their microphone (see screenshot below for Zoom instructions).



If an AAC user's device connects to a separate device that is accessing the meeting (e.g., a tablet connected by USB to a computer), using this strategy can often result in clearer audio.

AAC users with speech-generating devices who are able to change their device's settings should make sure the device's playback speed is slow enough for other participants and interpreters to keep up with. It's helpful to test speed and audio clarity before the meeting or webinar begins.

Letterboards, typing, and other non-audible methods. Some users of these methods have communication support persons who will read their input aloud. In situations where users type in the chat, consider appointing a participant to be the access monitor to voice written words aloud and to troubleshoot any other access needs that may arise.

Revoicers or speech-to-speech communication assistants. Some people with speech disabilities are able to speak, but their speech may not be heard and understood by everyone. These people may use a "revoicer" or a speech-to-speech assistant: a person who understands and can repeat their words more clearly. Revoicers who are in the same room as the person with a speech disability should ensure that their voices are able to be picked up by the same microphone.

In situations where a dedicated revoicer is not available, you should discuss with the speech-disabled person whether or not to appoint an informal revoicer for the meeting. That person can restate their words to ensure they can meaningfully participate in the conversation as best as possible. Some people may prefer to have their words revoiced faithfully and exactly; others might be comfortable with a rephrasing. Ask what each individual prefers. And always check in to confirm you are being accurate in the revoicing.

Using one of these options is especially important in cases where some members of the group have never spoken to someone with a speech disability before, when some members are d/Deaf/hard-of-hearing or have auditory processing problems, and when the captions capturing their speech are inaccurate (which happens often to people with speech disabilities). Remember that pretending to understand someone and moving on without engaging with their words is unacceptable and ableist. For more tips on this kind of communication, jump to the AAC Etiquette section in this document.

Choosing Your Platform

We strongly recommend asking participants directly which platform is easiest for them to access. They are the experts on their own needs. (It's not always as simple as deferring to a single participant: you may have multiple key participants who each have their own needs and preferred ways to meet them. The solution to these conflicting access needs is really just to talk about it, respectfully and with an open mind, and see what ideas you can generate together.)

That said, CommunicationFIRST has found that the Zoom platform seems to be more cognitively and physically accessible for many AAC users compared to other major virtual video conferencing platforms such as Microsoft Teams, GoogleMeet, or Cisco WebEx. It's also continuously adding accessibility features, and is more customizable, which is itself a valuable access feature.

Keyboard shortcuts, an important digital access feature for people with a wide variety of disabilities, are also most robust (and customizable) in Zoom, compared to Microsoft Teams and Cisco WebEx.

Zoom has also newly released Team Chat, a chat window that can be used and accessed before, during, and after meetings.

For some purposes, you can also avoid using a meeting platform altogether by choosing an asynchronous way to meet instead, through email or instant messaging (like texting, Slack, WhatsApp, or Messenger) or even in a Google Doc. Asynchronous meetings allow AAC users who need time to process, compose, and type their thoughts to participate when they are able, at their own pace.

There are other advantages to asynchronous meetings. For starters, there's no need to worry about time zone or scheduling conflicts. People who would otherwise not be able to make a scheduled meeting (maybe they can't take time off work, or have to care for a loved one) can still participate fully. And with plenty of space and time to talk and view all sides of a discussion, the asynchronous option can be a good option for groups to make democratic decisions. Nondisabled people benefit from plenty of time to think, too.

Asynchronous options are available even if you're running a public event like a webinar. For example, someone who needs to use AAC to be understood might prefer to participate or share their views via a prerecorded video.

Remember, however, that asynchronous meetings aren't necessarily the better option just because someone uses AAC—they're just one of many possible strategies for some, and the benefits of participating in real-time conversations may outweigh the difficulties.

Testing Your Platform

Take some time to assess how difficult it may be for someone with motor, cognitive, and/or other communication disabilities to access the platform. This can be helpful when you don't have the chance to get your participant's input on their platform of choice (or when they're not sure, either), but it's also an effective way to get a sense of how different disabilities may impact someone's ability to participate meaningfully in a meeting held on a given platform. If the participant isn't sure, offer to test out the platform(s) with them and to give them a tutorial if needed.

Motor Disability Accessibility

To assess the platform, first delete all the cookies on your browser (or open an "incognito window") so that any settings your computer may have saved are deleted. Pretend as if you are using the platform for the first time. Click on a sample meeting link. Count how many clicks and keystrokes (letters and numbers that may need to be typed) are necessary to:

You can reduce clicks and keyboard strokes on your end, too. Here are some ideas:

- Paste the meeting link at the beginning of the email, not the end, to eliminate unnecessary scrolling.

- Don't require a passcode for your meeting if at all possible. (You can embed a passcode in the meeting link with Zoom. And you can keep the meeting secure by having the host only admit people they recognize as invitees, one at a time.)
- Keep ASL interpreters' camera feed spotlighted, so the participant doesn't have to do it themselves. (In Zoom, "pinning" is for you only; "spotlighting" is for all attendees.)

Cognitive Disability Accessibility

Like people with motor disabilities, people with cognitive disabilities generally have a harder time with processes that have more steps. The more tasks a user must initiate independently, the more difficult it will be for them to access the platform. For example, while requiring two-factor authentication can improve security, it can make getting into the meeting more difficult, time-consuming, and exhausting for people with cognitive (and motor) disabilities.

Other factors to consider:

- **Navigation:** How does the platform guide you through the process of opening the program and entering a meeting? Is there appropriate "signage" (icons that clearly indicate their purpose) for people with low literacy who may rely on images? Are settings and user actions described in clear, easy-to-read language?
- **Memory burden:** Do you need to remember something from another place in order to enter a meeting (e.g., passwords)?
- **Tech reliability:** What's most likely to happen when something goes wrong? If a program is buggy, laggy, or prone to crashes, be aware that this will contribute to stress and dysregulation for all participants.
- **Visual clutter:** How much customizability is supported by the user interface? Can you turn off features you don't need?

Accessibility with Other Communication Disabilities

Visual access. Zoom, Teams, and WebEx are all technically screen reader-compatible, though Zoom's screen reader support is most robust and most consistent. That said, if your participant uses a screen reader, they may have a personal preference.

Auditory access. Is the auto-captioning any good, and can it understand SGD-generated speech or people whose speech is not always clear? What will you do if the auto-captioning doesn't work?

DeafBlind access. DeafBlind people communicate receptively and expressively in many ways, and there's no one-size-fits-all approach to making sure someone can participate. There may not be an easy or automated solution for their communication needs, and sometimes hiring a human to

assist is what it takes. Ask a DeafBlind participant what they may need to participate in conversations, virtual or otherwise, and don't be afraid to get creative.

Scheduling

If you've decided on a synchronous meeting, you'll have to decide on a time and date. Keep in mind the following when scheduling with a person who uses AAC:

- **Schedule as far in advance as possible**. AAC users may need extra time to prepare, especially if they will be expected to actively participate in real time. They may need to type out what they plan to say in advance, or arrange for a communication or tech support person to be present during the meeting.
- **Don't rely on online tools.** Polls made in tools like Calendly, Doodle, or Google Forms are sometimes used to find mutually agreeable meeting times. However, navigating between these tools and a participant's personal calendar demands motor movements and good short-term memory, and may not be accessible for people with motor or cognitive disabilities.
    - As an alternative, **offer 3-5 dates and times that work for you in an email** (or during a meeting) and select the one that works for most respondents. To make responding easy, number the options (e.g., 1, 2, 3, 4) so participants can respond with the number that corresponds to the time that works best for them, instead of having to spell out the date.
    - If you must use a poll or if it is requested, ask which online tools work best for your invitees—and don't expect them all to use it. **Multiple options are important.**
- **Coordinate for frequent meetings.** If you'll be organizing meetings frequently with a certain group of people, they may be willing to give you certain permissions to access their calendar. On Google Calendar, for example, permissions can be granted in a way that others can see everything on your calendar, or can see only that you are busy at certain times. If they are willing to do this, ask them if it is safe to assume you can schedule meetings any time that is free during regular business hours (or whatever the possible time frames will be).
    - For recurring meetings, it is also often more accessible to **schedule a regular weekly, monthly, or quarterly time** (e.g., every Tuesday at 2:00 pm ET). This is easier to remember and to schedule: simply set up a single recurring meeting notice with the same meeting link.

- **Consider length.** Using AAC and attending meetings can be exhausting, and may have a greater impact on some people than others. Consider discussing comfortable meeting lengths with your attendees.

Invitations

Here's how you can make sure invitations are accessible to as many people as possible.

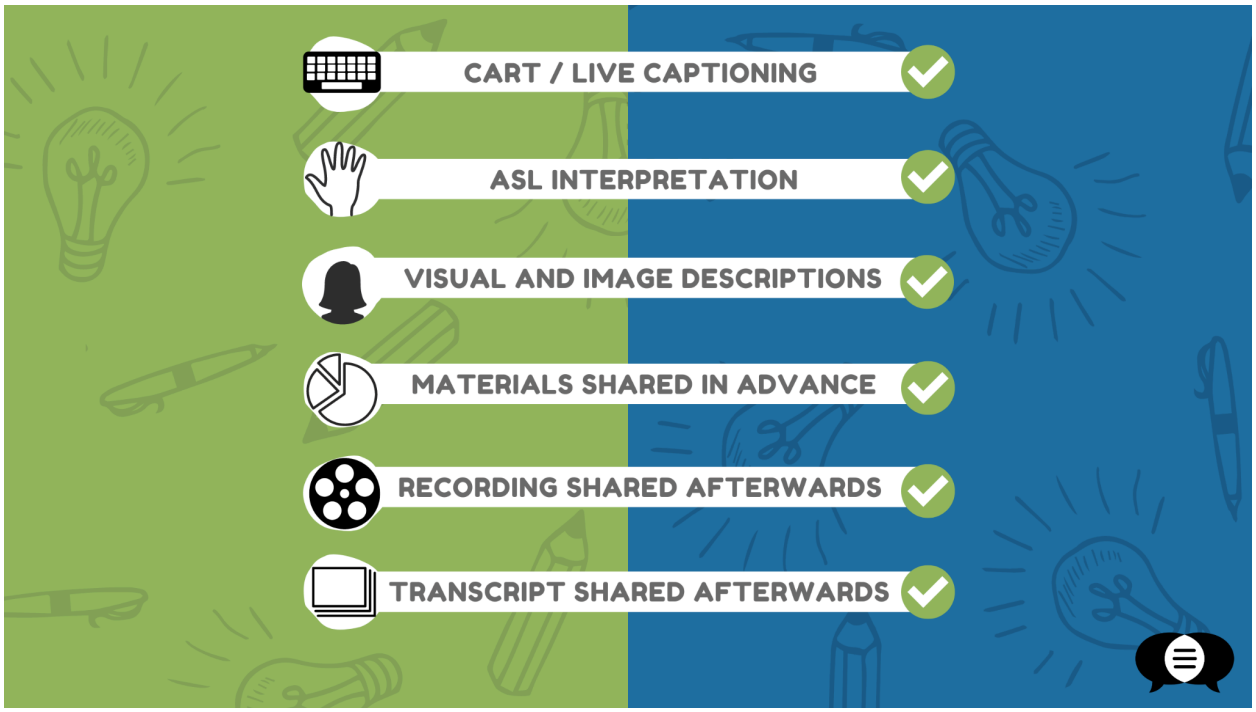
- **Design thoughtfully.** Some people design complicated graphic flyers with links or email addresses in the flyer in PDF format, and then attach the PDF to an email. This is not an accessible way to advertise! (Too many clicks, opening a new window or program, etc.) If you create a graphic flyer, do it in JPG or PNG format, make sure it has alt text embedded, and that the flyer contains clickable links to register or to send an email addresses. Links and emails should also be clickable in the text of the email itself.
- **Make RSVPs easy.** Just as with scheduling, **providing multiple options to RSVP is important.** Replying to an email, filling out a form, or selecting "yes" on a Google Calendar invite are all possibilities.
- **Even when formal registration is required, offer alternatives.** Registration is sometimes required in order to capture necessary information about attendees (such as names and email addresses), but the Zoom registration form is not accessible to everyone. Multiple options for meeting registration requirements should be available and stated clearly in event materials.
- **Let people plan ahead.** Be clear in the invitation about how long the meeting will be.
- **Communicate about access needs.** Be clear about what platform the meeting will be on and what access options will be available (e.g., the Zoom chat, audio, video, CART/live-captioning, American Sign Language, sending the slides in advance). Ask attendees to let you know what additional access needs they may have. Include a reasonable deadline by which you may need to hear about any additional accommodations in order to provide them.

Building In Access from the Start

When sending out invitations, note which accessibility features you intend to provide by default, and ask which other features may be helpful for the invitee. Including a few examples can help give people an idea of what they can ask for. Here's an example of an accessibility blurb:

> "The Ford Foundation is committed to hosting accessible, inclusive events. Live closed captioning will be available during the event both in-person and virtually. Would additional accessibility accommodations or services be useful to help you fully participate, such as ASL, large-print or Braille materials? Please describe when you register or email events@fordfoundation.org."

For webinars or large meetings, CommunicationFIRST incorporates most or all of the following accessibility features by default:



Don't give machine-generated captions too much credit. Automatic captions are not always reliable even for people who can always rely on speech to be heard and understood. Automatic captioning generally does a terrible job with AAC (though it is improving rapidly as technology advances). Plan and budget for a CART (Computer-Assisted Real-Time) transcription provider, who can quickly correct and support computer-generated captions. Some attendees may need captions that can be displayed on a different screen, which can be done with tools like StreamText.

Make sure your CART and ASL providers come prepared. Request external support providers who are familiar with transcribing AAC communication, and share with them in advance any specialized terms that might come up during the event. It also helps external support providers to get accustomed to the communication styles of the specific AAC users they'll be working with. Consider sharing recordings of that particular AAC user communicating (with the consent of the individual, of course!). These examples might be from public speaking, meetings, or past webinars.

Make sure you're prepared for your ASL providers, too: for any event longer than a half hour, you should have two ASL interpreters. Translating and signing nonstop can be exhausting, so teams aren't optional—your interpreters need breaks or they won't be able to interpret. Having multiple interpreters can also come in handy in the event of technical difficulties.

Sharing materials in advance should be a given—don't wait for someone to ask. Materials like slides, videos, audio, readings, participant biographies, and other content to be shared during the meeting may take time to process and understand. Some people might need to access that content in different ways (for example, by listening to a support person describe the visuals of a video). Sharing an agenda or discussion questions, if relevant, can also help participants prepare by thinking about their opinions or typing responses in advance.

Ensure visual accessibility with alt text in your materials, visual descriptions of speakers, and image descriptions during presentations. For people, a visual description may cover hair, eyes, skin color, clothing, and background (or anything else they deem relevant). For image descriptions of visual content like slides, images, and videos, describe the content's purpose ("a chart showing the five steps of this process") and keep it brief.

There are as many options for access as there are people, but you might also consider:

- **Plain language.** Plain language uses simple, clear words, and keeps sentences simple. You might develop plain language materials to aid understanding. You can develop your plain language skills with resources from Green Mountain Self Advocates or Simple English Wikipedia.
- **Meeting summaries.** In follow-up emails, share key points from the meeting and next steps (such as "we agreed to finish this project by the end of the month" or "we'll be meeting again next Tuesday") to maximize a meeting's effectiveness for everyone.
- **Multiple formats.** Provide materials in multiple formats, such as video, audio, and written versions.
- **Interpretation in another language.** Simultaneous interpreters for spoken languages, like those who interpret ASL, should be hired in teams for events longer than a half hour.
- **Directories.** An informal list of names, pronouns, locations, and other relevant information can be used to keep track of all attendees' information and can reduce overwhelm. If you can, include photos and/or visual descriptions.

Supporting Attendees

Accessibility isn't a one-and-done process. You may need to provide support before, during, and after the meeting.

- **Keep people informed.** If your platform of choice requires downloading software or making an account, like Zoom, make sure your attendees know beforehand. Encourage them to set up several days before the meeting to make sure they're ready on the day of. They can do this by clicking on the link you have sent to them, which will prompt any required downloads. Remember, too, that some software may surprise you with updates, so ask people to log in a few minutes early just in case.

- **Be available.** Share contact information with your attendees. If the meeting isn't working or they can't get in for some reason, they should be able to easily and quickly reach you through email, text, or phone to let you know.

- **Offer help.** Provide technical assistance for anyone who may need it to download new software, create an account, sign in, connect to video and audio, or otherwise access the meeting. Tech support should be reachable by email, text, and phone, too.

- **Be kind.** Technical difficulties can be deeply distressing for some people who need AAC, especially autistic people. If someone returns from technical difficulties such as computer crashes or Internet failures, responding patiently and neutrally ("That's fine, welcome back. Before we lost you, we were talking about…") can help people resettle into the conversation. However, if the participant is visibly distressed or unusually quiet, they may be feeling too dysregulated to continue. If it's possible, you may consider offering the possibility of continuing the meeting at a different time. At minimum, make sure everyone knows that anything they couldn't share during the meeting can be shared later, via email or another point of contact.

    - Dysregulation can also occur from other unexpected interruptions, such as disruptions in the physical environment, unmuted participants, or triggering discussions. Keep in mind that many factors can impact whether or not someone is able to understand, process, compose, and share in a conversation.

- **Compensate support persons.** If an invitee needs a support person to ensure they can meaningfully prepare, register, or participate in the meeting, you should offer to compensate them for their time. Likewise, if your event or conference typically has a fee, waive this fee for your participant's support person.

Social Accessibility

Meeting Access Monitors

Appoint an "access monitor" who doesn't have another significant role in the meeting to:

- Make sure people don't "talk over" an AAC user while they are typing.
- Keep an eye out for anyone who might be typing, and halt other discussion while they are typing—both so that the AAC user can concentrate on what they are doing, and also so the discussion doesn't move on to other topics.
- Read out loud what people type in the chat word for word. (To help people keep track of what's going on, read according to conversations, not necessarily chronologically.)
- Voice visual communication that some people might not be able to see (e.g., "Ren is giving a thumbs up"; "Bob is nodding"; "Melissa is typing"; "Jordyn is laughing").
- Keep an eye out for anyone who is raising their hand to be recognized, who looks confused, or who seems to be having technological issues.
- Ensure everyone can enter the meeting platform.
- Spotlight the ASL interpreter or a human revoicer whenever there is one. If there are more than 6-8 people in the meeting, spotlight the person who is communicating to allow people to more clearly read lips.

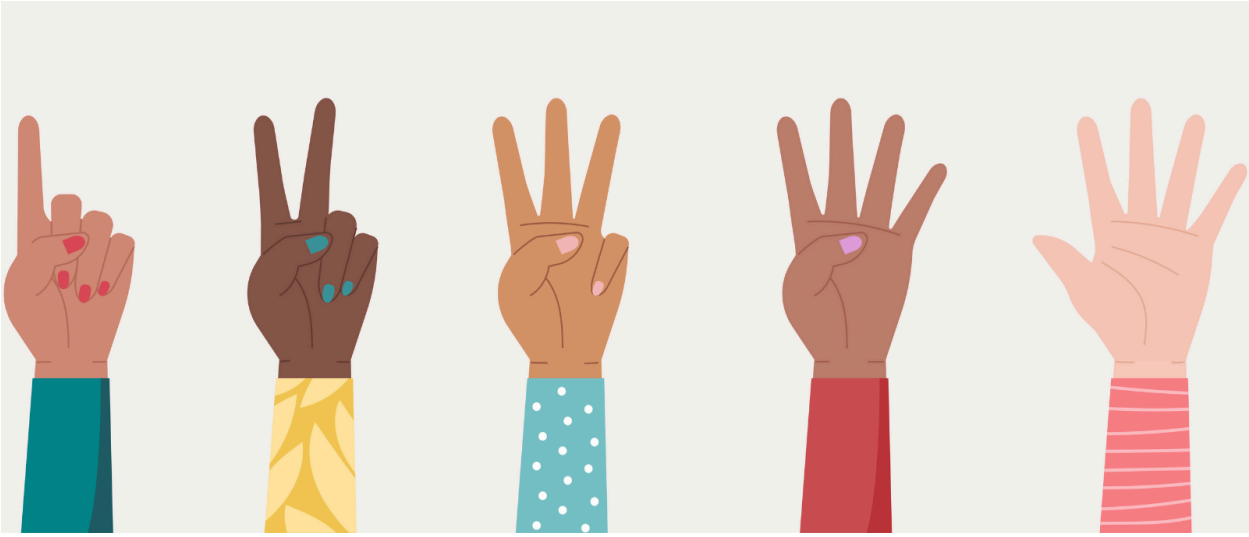
Getting Consensus

In a meeting that meaningfully includes AAC users, you may not be able to gain consensus in the ways you're used to, or in the timeframes you expect from people who don't need AAC.

How you gather answers to any given question depends on the people present and their needs, but here are a few suggestions, all of which can be executed primarily by an access monitor or by the person leading or organizing the meeting:

- **Always offer the chance to respond to a question before or after a meeting.** Some people may need time to type out their thoughts, and some people may need time to consider their options and come up with an answer. (This is one very good reason to send questions you'll ask before the meeting even begins: AAC users can take the time and space they need to prepare to answer.)

- When people are giving answers during a meeting, **affirm outright that it's okay to share responses after the meeting.** Many AAC users are so used to being ignored and overlooked that they won't share their opinion after the fact. Make sure they know that this time is different (and then follow up on that promise: engage meaningfully with what they've shared, regardless of how they share it). This can be done by setting up a post-meeting survey with a single prompt to add a point that you were not able to during the meeting.
- The **Five Finger/Number voting method**[2] can be used when opinions are ready to be shared:



  - 1 = Yay, I approve! Do it!
  - 2 = Meh, I'm not thrilled, but I'll approve.
  - 3 = I am not sure, I need more information or discussion.
  - 4 = I don't like it, I won't approve it, but I can live with it.
  - 5 = I hate this so much that I can't live with having my name associated with it.

  Some people may not be able to use their fingers (e.g., they don't have five fingers or they can't volitionally move their fingers), but some people may prefer using their fingers to typing out a number. Give the option of either, but **remember that the answer may be "I can't give you an answer right now" regardless.**

[2] Via AASPIRE, as discussed in Nicolaidis, C., Raymaker, D., McDonald, K., Dern, S., Ashkenazy, E., Boisclair, C., Robertson, S., & Baggs, A. (2011). Collaboration strategies in nontraditional community-based participatory research partnerships: Lessons from an academic-community partnership with autistic self-advocates. *Progress in Community Health Partnerships: Research, Education, and Action, (5)*2, pp. 143–150.

- When a particular topic has already been discussed and a formal vote is required, asking for ayes and nays—and then confirming each answer to ensure no mistakes are made—can work, but you shouldn't rely on this method in a general sense. AAC users should be given the chance to provide a nuanced answer as often as possible. Plus, answering yes/no questions frequently as an AAC user can feel tiring or patronizing. **AAC users have many things to say beyond yes and no, so give them the space and access they need to do so.**

Conflicting Access Needs

Disability is diverse, and what one person needs in order to participate might make it harder for someone else to participate. **Access needs conflict**, and there's no way to avoid this. Nor is there a single answer for any given situation. Instead, **have as many alternatives as possible**.

For example, some people might use the chat function to communicate, while others might be unable to see it, read it, or keep up with it. An access monitor who reads the chat aloud can help. To keep the chat clean and available to people using it as AAC, you might use an alternative tool to share links, files, or ideas, like a Slack server. Remember that alternative tools can come with their own access concerns, so check first.

Accessibility Ground Rules

If the gathering is part of a series of meetings, involves people with competing access needs, involves people who may not have had a meeting with a person with a communication disability before, or will cover challenging topics, consider whether to adopt "**ground rules**," "meeting norms," or "group agreements" that lay out a set of expectations.

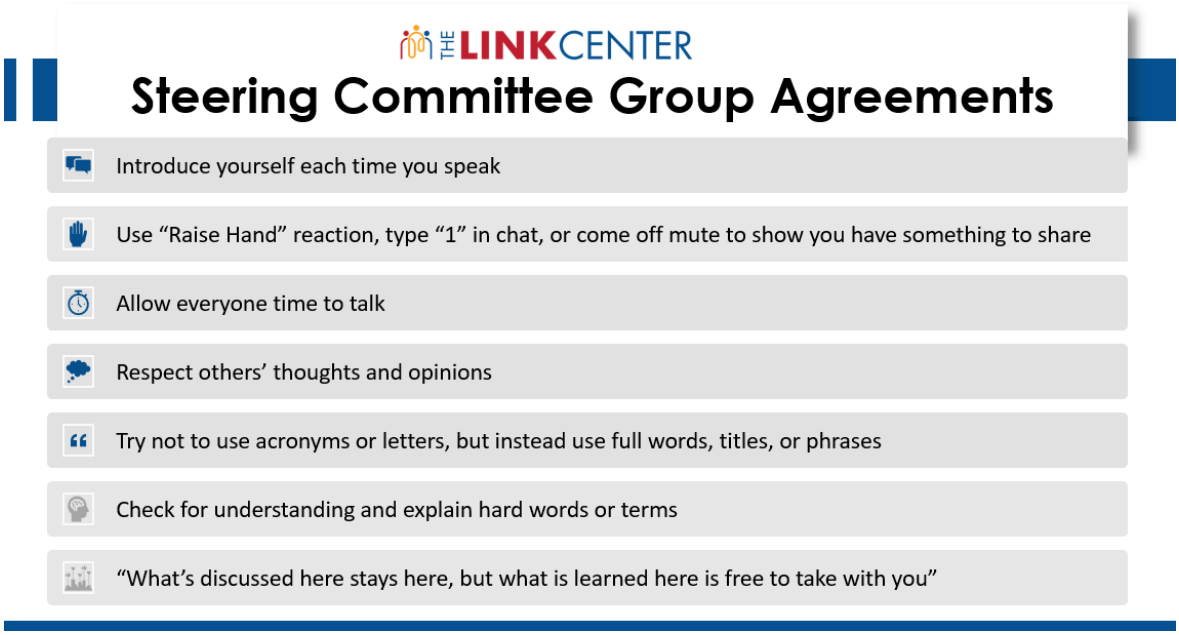
A tentative list should be shared with attendees before the meeting and then discussed at the beginning of the meeting. Spend some time to make sure everyone agrees with the list and to ask if anyone has any questions or other suggestions. Some examples:

- Say your name first when speaking, so people who are blind, low vision, or participating via phone know who's talking: "This is Bob speaking." (This can be pre-programmed into AAC devices to save time and labor in the moment.)
- Share your pronouns and a visual description of yourself the first time you speak during a meeting.
- Do not talk when someone with a communication disability is signing, typing, or using AAC. Likewise, only one person should speak aloud at a time.

- Reserve the chat for people who cannot rely on speech.
- Turn your camera on if you are using your mouth to speak, because there may be participants who need to read lips or body language to understand.

It's important to review ground rules as a group. You may choose to do this just once after they're agreed upon, but it may also make sense to revisit them at the beginning of each meeting if, for example, your group would prefer to review them each time, or if your meetings are spaced out far apart from each other.

Here's an example of a slide covering group agreements, published with permission from [The Link Center], developed and adjusted by their self-advocate Steering Committee.



Pre- and Post-Meetings

Pre-meetings (also called prep meetings or get-ready meetings) help by ensuring that attendees feel prepared, comfortable navigating the meeting platform, and able to participate fully. This can cut down significantly on surprises, distress, confusion, and exhaustion.

During a pre-meeting, you might…

- **… do a trial session.** Encourage participants to adjust settings for audio, microphones, speech-generating devices, video permissions, names, chat, and anything else they may need to interact with during the meeting or event.
- **… review the agenda and any slides** or other content you intend to share on the day of, such as questions that will be asked. This gives attendees time to process information and develop their thoughts, as well as the opportunity to ask any questions about content that may be unclear. Try to avoid getting into discussions when not everyone is present, but don't scold a participant for sharing thoughts on the content during this meeting, either—you might make a note of their remark and ask if it can be shared again during the meeting itself.
- **… highlight questions or topics** that attendees will be asked to remark upon during the meeting itself. This gives attendees time to think about their answer, and, if relevant, program longer responses into their AAC device.

Post-meetings (also called debrief meetings or review meetings) give a chance for everyone to debrief, usually the day after a meeting or a few days later.

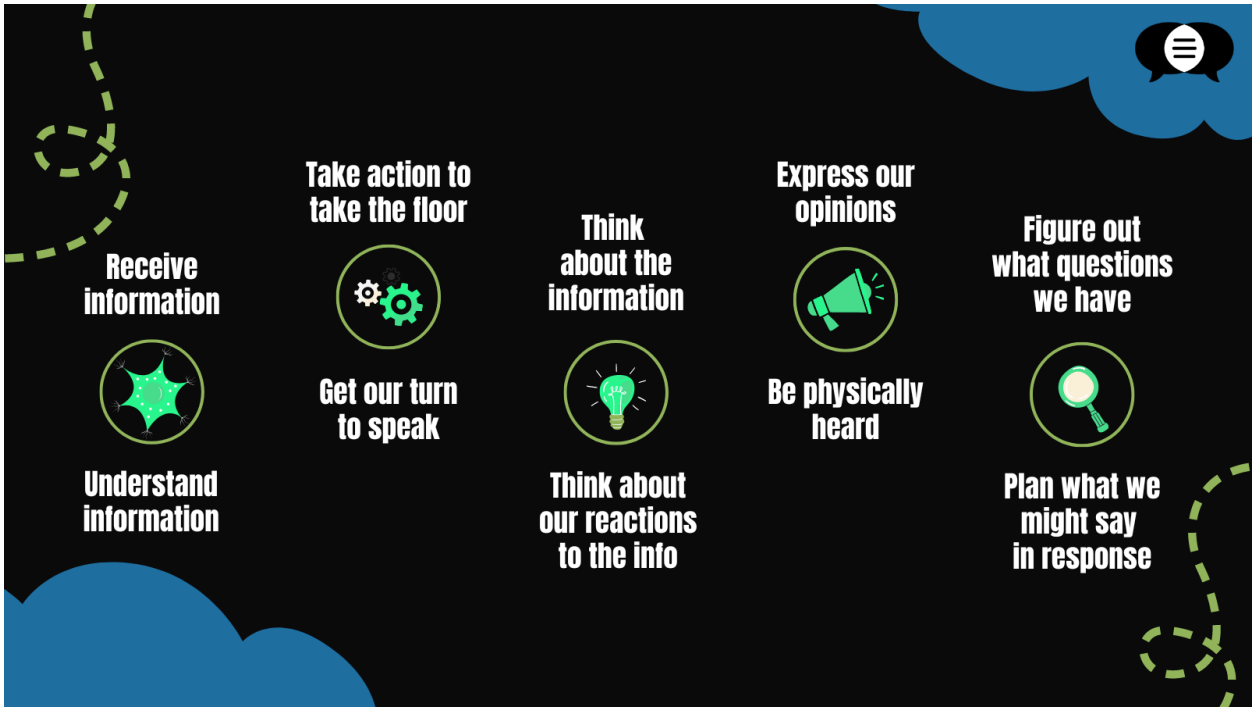
During a post-meeting, you may…

- **… answer new questions or address new information** that participants needed more time to think about, or had forgotten during the meeting itself.
- **… share constructive feedback** and review any hiccups from the meeting.

Depending on the group and the setting, you may also wish to **follow up individually** via email or text. Some participants may have insights, questions, or accessibility requests that they are not comfortable sharing with a large group. This is also a great opportunity to check in on what went well, what was difficult, and what can be improved in the future.

AAC Etiquette

If you do not experience a communication disability, please keep in mind that someone with a communication disability may need to expend more effort to have equal opportunity to:



There are many things that someone with speech privilege can do to even the playing field and show respect for all methods of communication.

Don't speak over someone with a communication disability.

- If someone is composing their message, stop talking and wait until they're finished (unless they signal that you can go ahead).
    - If you have something to say in chat, type it up and then wait to send it. Do not hold another conversation in chat while an AAC user is typing (on a device or in chat). It's just as rude as having a side conversation while someone is already talking to you.
    - Some users with AAC devices prefer to have every word said aloud as they type, and then repeat the sentence or full response at the end. Others prefer to only have a sentence or a full turn in the conversation played aloud. Others won't have any audio associated with their words. Regardless of what kind of AAC they are using, if they are still typing or otherwise still composing their words, they are still talking. Wait to speak until their turn is finished.
- Watch for cues that signal when someone is typing or otherwise getting a message ready. If other people don't notice, speak up and stop them.
    - It may or may not always be obvious when someone is composing a message. Work together to find a way to make it clear. For example, one CommunicationFIRST staff

member who uses the Zoom chat to communicate signals that they are typing by sending "..." in the chat first. Other people might use gestures, sounds, or a facial expression.

- Keep crosstalk and background noise to a minimum. Many AAC users need or benefit from calm, quiet environments in order to communicate effectively. Mute your microphone when you aren't speaking to prevent noises in your environment (like fans, background speech, or pets) from disrupting the meeting.

Assume an AAC user has something to say.

- Ask before you move on if there's anything they'd like to add—and give them enough time to answer. Some scripts that may help include: "Bob, do you have something to say on this?" or "Tim, do you have a point to make?" This will create the space for them to respond, and help model respectful listening behavior for others.

- Keep the chat open, and keep an eye on it. Even if someone primarily uses a speech-generating device, they may type in chat from time to time, too. Make sure the comments of people with communication disabilities (especially if the chat is their primary method of communication) don't get lost in the flow of spoken conversation. One way to do this is by reserving the chat for people who use chat to communicate.

    - If you're holding a webinar or event with many viewers, you may choose to enable chat for only the "host" or "speaker" roles instead.

Let them finish.

- Don't guess what an AAC user is going to say or try to complete their sentences for them. Even if you're right, it comes across as annoying at best and patronizing or dehumanizing at worst.

If you don't understand, ask.

- If you do not understand what an AAC user is saying using a speech-generating device, ask them to repeat it. Some people may be able to slow down their device's output or turn up the volume.

- If someone with a speech disability says something that you don't understand, whether it was through speech, device output, or text, don't move on until you know and understand what they had to say. Pretending you understood when you really didn't is patronizing, deeply disrespectful, and a waste of everyone's time.

Be thoughtful about typos, misclicks, and perceived "errors."

- If it wasn't clear what a participant meant, ask for clarification like you would with a speaking communication partner who said something you didn't understand. If it *was* clear, simply move on without acknowledging the typo.
- Some AAC users, especially autistic people and people with language disabilities, may use grammar that appears unusual. Listen, be patient, and value their way of communicating; if you need clarification, ask questions when they're done.
- Never correct an AAC user's grammar or spelling without their permission.
- Use the principles of active listening: rephrase what they said ("So you're saying…" or "You mean…" or "I'm hearing that…") and elaborate and expand on it.
    - In asking for clarification, you might offer a few different interpretations of what they meant, and include an option for "other" or "something else."

Don't paraphrase when reading typed words aloud.

- Read through an entire comment in your head to make sure you understand it before you read it aloud.
- Read chat comments at a conversational pace—don't speed through them. Racing through comments can make people who communicate via chat feel like you're just going through the motions.
- Even if you receive someone's remarks in advance, it is not acceptable to edit those remarks. Just as it is wrong to stop someone in the middle of their speech to tell them that they *really* meant something else, it's unacceptable and ableist to edit someone's prepared remarks without their permission.

Address the person with a speech disability directly.

- Some people with speech disabilities have communication support persons. Avoid addressing the support person if you can address the disabled person themselves.
- Communication support persons should be treated similar to how interpreters are treated (unless they are themselves co-presenters).

Respect communication differences.

- Some AAC users communicate a great deal using their bodies, including with facial expressions (smiles, frowns) and gestures (nods, head shakes). Pay attention to this

communication, too, not just words—and make sure these visual communications are voiced aloud, if anyone is present who may not be able to see them.

- Many people benefit from having chat messages read aloud for a variety of reasons, but note that this is another place where access needs may conflict: some AAC users who prefer text do not want their text revoiced at all, or may only be comfortable with specific people as revoicers. Ask first, but know that you may have to come to a compromise to ensure everyone can access the AAC user's communication.
- Don't establish group rules or norms that not everyone can participate in. Come up with group norms that you know work for everyone, or don't come up with a group norm for that particular thing at all—establish what each kind of communication means by acknowledging it: "Jen gave a thumbs up, she's ready. Ren says they're ready in chat."
- Don't comment on *how* someone's communication looks or sounds. Communication via AAC tools and supports isn't "cute," "impressive," or "inspiring." It's just communication. Focus on what the person had to say, not the way they said it.

Step by Step

Run of Show Documents

For events and meetings that involve multiple presenters, consider creating a shared "Run of Show" document: a detailed agenda or script that lays out who is expected to speak and when. Some Run of Shows may include the actual words that will be spoken; some just note the basics. Make this available to all event participants (including interpreters and captioners) as soon as possible. If slides will be presented, incorporating images of the slides in the Run of Show document can be helpful as well, to make sure everyone is on the same page.

Here's a Run of Show or "script"-type document CommunicationFIRST created for a short presentation in August 2023. For longer presentations, or ones involving more speakers, color coding can make it clear at a glance whose turn it is to speak.

Most AAC users communicate much more slowly than speakers. Some prefer to type "live," so an audience can see the time and effort that goes into communicating for AAC users. Some prefer to pre-program responses in advance. Pre-programming can take a lot of time, so make sure we have several days or weeks to prepare. Some people prefer to do a mix of live and pre-programmed responses.

If there is a panel of presenters for the event, and each person is supposed to have a certain amount of time to present in real time, **it is reasonable to give an AAC user at least double time for their session**, unless they can prepare some in advance. Even with time to prepare, additional time is still important, especially if the device plays more slowly than the average 125-150 words per minute for speech-based conversations.

A Run of Show document might be a place for an AAC user to type responses to audience questions in advance so they can be shared during a webinar, or to store prepared text that can be copied and pasted directly into a speech-generating device or chat box. It's also a helpful way to visualize how much time each person can take to speak, and how much time you have left for a given topic.

Share Run of Show documents with all participants in a webinar, and with captioners and interpreters. You can elect to share a "finalized" Run of Show document with all attendees if you wish.

After a webinar is over, a Run of Show document can help guide transcript corrections, too.

Before Meetings

Two weeks before the meeting:

- Ensure all materials are accessible via screen reader to the greatest extent possible. (For most kinds of documents, focus on providing alt text for images.)
- Share materials with all participants, including any captioners or interpreters. (Materials should also include questions you want to ask attendees or discussion topics.)

A few days before the meeting:

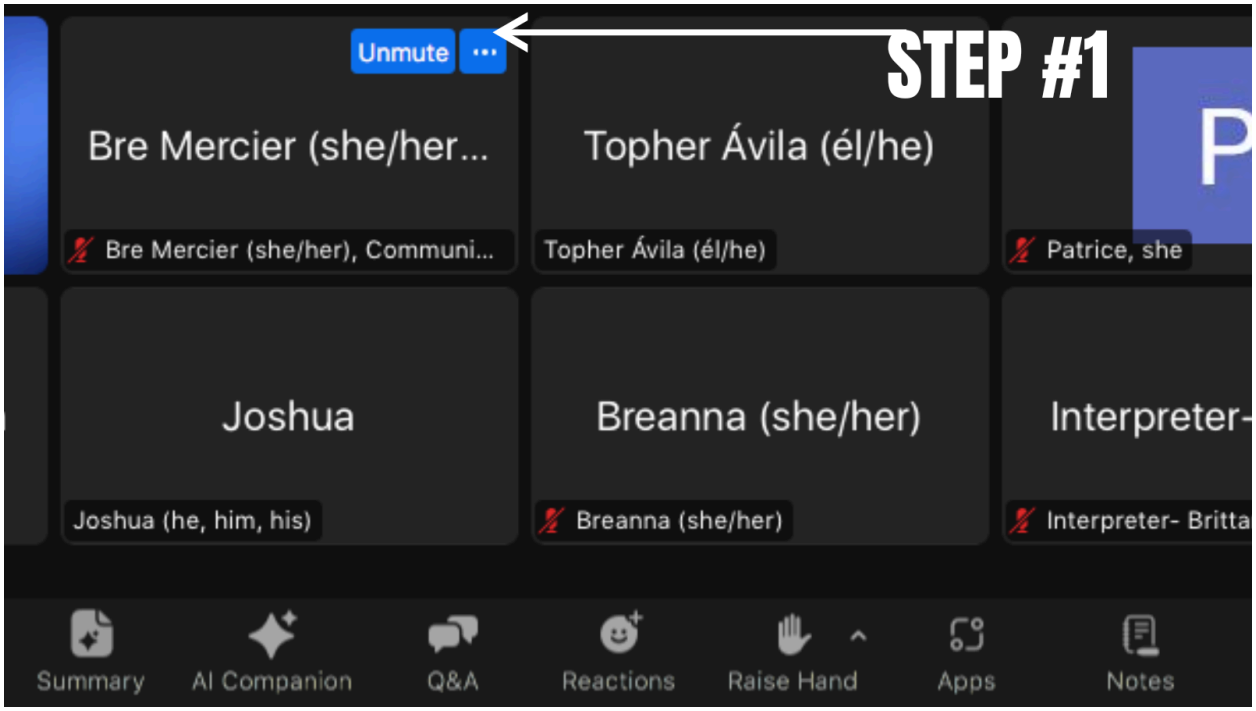
- If you're holding an event, meet in advance for a practice run. Ensure that the AAC user is audible or otherwise can communicate clearly on the platform you've chosen, and iron out any kinks in video, audio, and other settings.

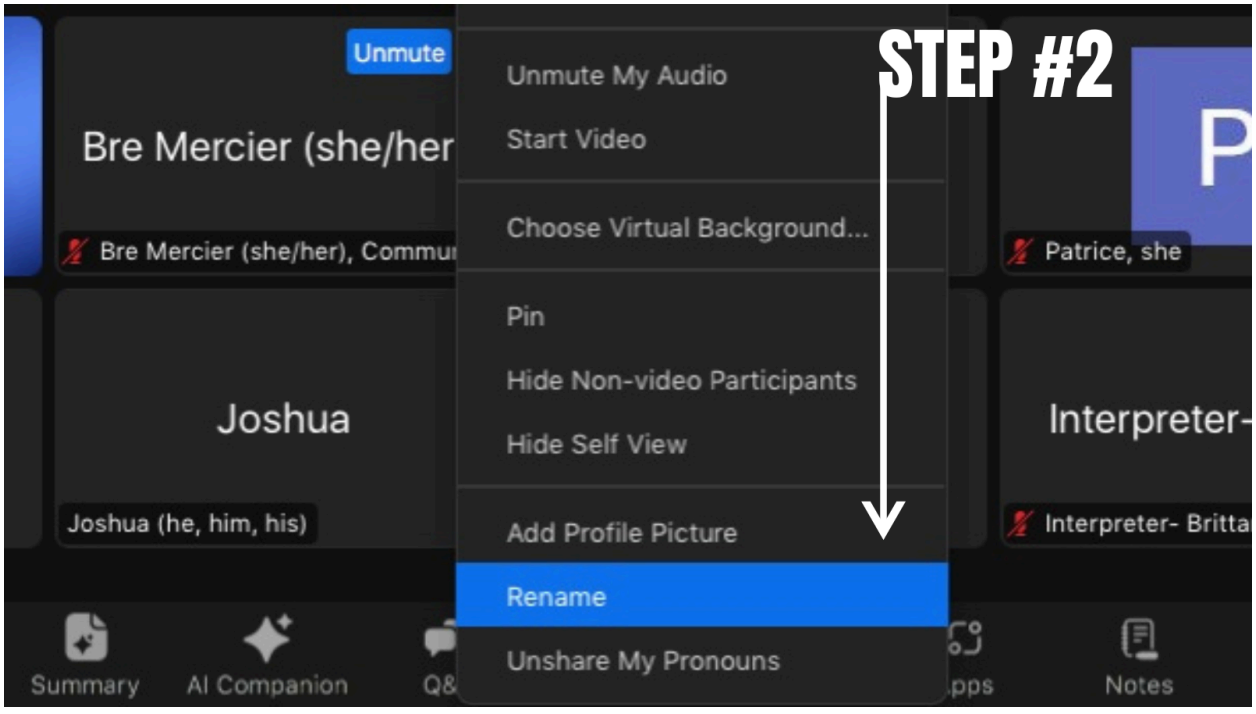
An hour before the meeting:

- **Send the link out** at the top of an email to your participants.
- Ensure that the AAC users you're working with (and their support people) have a way to contact you outside of the platform (such as email, phone, text, or messaging app).

Right before the meeting (15-30 minutes beforehand)**:**

- Open a virtual meeting 15-30 minutes before the meeting officially begins, and encourage any participants who use AAC to join early and get situated.
    - For regular meetings, 5-10 minutes will probably be enough for AAC users to fix any technical issues or glitches (although this will depend on their experience, preference, and needs). For events, 15-30 minutes may be better to allow for more time to iron out any unanticipated glitches.
- Let captioners and interpreters get settled in at least 10 minutes early to ensure the captions are working, to spotlight ASL interpreters, and to ensure interpreters in spoken languages are on the correct interpretation channel.
- Ask attendees to rename themselves in the online platform to list their full name, pronouns, and affiliation, if any. For example: "Tauna Szymanski (she/her), CommunicationFIRST." In Zoom, you can do this by clicking on the three dots on the upper right part of your image. Hosts can do this for panelists as well. See visual instructions on the next page.



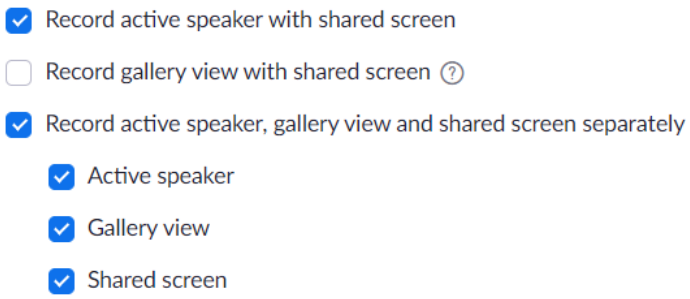


During the Meeting

- Begin on time.
- If you sent out an agenda or run of show document with a specific order, don't reorder the meeting. If you have no other choice, announce the change, and be prepared to provide support to your participants with speech-related disabilities to adjust accordingly.
- Review the "ground rules" at the beginning of the meeting, even if they were shared in advance with participants. For webinars, we suggest:
    - Each speaker starts by saying their name and their pronouns for the captioner and anyone who cannot see the screen. Each time they speak during the meeting, they should announce their name again, especially if there are attendees with visual disabilities, or attendees who are connected only by audio to the meeting.
    - Each speaker provides a visual description of themselves for anyone who cannot see the screen.
    - Describe any visuals (e.g., images on a slide) that may not be visible to an attendee.
    - Speakers should speak slowly enough (or pause between sentences) to ensure captioners and interpreters have time to capture everything accurately.
    - Between speakers, pause to give participants and access providers time to process.
    - Remember to "mute" your Zoom screen when you are not speaking.
    - Tell participants how they should ask a question or make a comment. Should they "raise their hand" (in Zoom), use the chat, or just jump in?

Recording and Editing

Not everyone who's interested in your webinar may be able to make it at that time, on that day. We record all our public events, add and sync corrected captions in a video production software, and publish the video and a corrected transcript on our YouTube.



Recording. Zoom has different types of recordings available. At minimum, record **gallery view** (to preserve video of people who are communicating without sound, such as ASL interpreters) and **shared screen** if sharing content. See above left for a visual example.

If you have spoken language interpretation, ask a participant (or use an extra device) set to that language channel to record the meeting, too, so you don't lose the interpretation audio.

Transcripts. Any transcript, produced either electronically or by a human in real time, will have lots of errors. Though it takes time to go through and correct the transcript, a corrected transcript will make your webinar much more accessible.

- Share the draft of a corrected transcript with the participants so they can correct anything you might have misheard. (This happens all the time!)
- Presenters with aphasia, autism, and some other speech-related disabilities may say a word that they don't intend to. In these cases, ask the presenter what their preference is in terms of how you do the transcript and captions. For a transcript, consider writing the word they meant to say in brackets. For captions, include the word they did say, but consider adding the word they meant afterward in brackets.
- Transcripts should omit revoicing, but video captions should include it.
- A transcript can omit "ums" and "uhs," but captions should include them.
- Transcribe and caption audible communication like laughter or expressive sounds.

Captions. Consider adding corrected open captions to the video recording, instead of having them be available as closed captions that can be toggled on and off. This saves additional keystrokes and clicks. (You might see this method described as "burning in" captions.)

Never edit out the pauses in an AAC user's real-time communication unless you have been given explicit permission to do so. Editing out these pauses without permission is effectively telling an AAC user that they are not worth waiting for. Deleting the silences erases their efforts.

After Meetings

- Share the final meeting materials, including handouts, slides, transcript, and recordings, with participants and attendees. As with sharing materials ahead of time, don't wait for people to request this as an accommodation—share them anyway.

- Ask participants for feedback on the accessibility of the meeting. Ask how they felt about the meeting or event, and ask if they were able to communicate what they wanted. Ask if there is anything you can change or do better for next time.

"Hybrid" Meetings (both in person and online)

Hybrid meetings should prepare to provide accessibility features to in-person participants and remote participants. Scheduled support should include:

- Two separate **ASL interpreter teams** (four interpreters total; teams should be in pairs of two to allow for breaks and technical difficulties)
- **Live captions** visible to both in-person and remote participants, which may require hiring two different stenographers
- Two separate **language interpreter teams**, if relevant (four interpreters total)
- Two **communication access monitors**, one for the in-person room, and one for the online setting

Ensure that cameras in the in-person location can get **close-up views** of whoever is speaking, including members of the audience (for example, in the event of Q&As). You may decide to put access monitors in charge of camera and microphone support, or you may wish to have dedicated tech support available.

Keep cross-talk and background noise (like fans) to a minimum. AAC users often need **calm, quiet environments** in order to be heard and understood. This might be because they need to focus to type, because a revoicer may need to listen closely in order to hear and understand them as accurately as possible, or because digitally generated speech can be more difficult for others to understand clearly in the presence of other sounds.

Other strategies for making AAC voices as clear as possible might include **projecting AAC input onto a screen** to be read, or **using directional microphones**. If multiple groups are speaking in the same room simultaneously (e.g., in discussion groups), consider creating more space between each table or group, and using fewer seats than you might ordinarily.

If the virtual attendees are participating in the meeting, ensure that the people in the in-person room are **able to see the online participants' faces** when they speak. This is important for the receptive and expressive communication of all participants.

Ask everyone, whether they are in the in-person room or in the virtual meeting, to identify themselves when they begin to speak. This is even more important during hybrid events, where it's not as easy to keep track of all speakers.

Finally, consider whether to disable the chat function in the online meeting, or to limit its use to people who may need to communicate with the host or access monitor.

Additional Resources

Disability Inclusion at Events

- The Revolution Must Be Accessible (also available in ASL y disponible en español): Tips and Advice for Organizers: A guide for building access-centered online movement education (HEARD)
- Listen Include Respect: International Guidelines for Inclusive Participation (Inclusion International & Down Syndrome International)
- Guidelines for Planning and Participating in a Diverse and Inclusive Event (Disability Rights Bar Association)
- How to Make Your Virtual Meetings and Events Accessible to the Disability Community (Rooted in Rights)
- Accessible Online Meetings and Accessible Conferences and In-Person Events (ISAAC)
- Presenter Guidelines (National Disability Rights Network)

Digital Accessibility Tools

- Digital Accessibility and Other Best Practices for Remote Work (Disability:IN)
- An overview of accessibility features in video conferencing apps and software (SCOPE)
- Enabling a Captionist in a Zoom Meeting (RIT Service Center)

Understanding Accessibility Best Practices

- Create Accessible Meetings (Section 508, U.S. General Services Administration)
- Create Accessible Digital Products (Section 508, U.S. General Services Administration)

- Six posters on accessible layout and graphic design for people with a variety of disabilities (Karwai Pun for the UK government)
- Accessibility Testing Tools and Practices (Harvard University)
- Create accessible Office documents (Microsoft)
- How to Create a Helpful Visual Description (Veronica With Four Eyes)
- How to Write Alt Text and Image Descriptions (Veronica With Four Eyes)
- Write good Alt Text to describe images (Harvard University)
- How to Write Using Plain Language (Green Mountain Self-Advocates)
- How to write Simple English pages (Simple English Wikipedia)
- The Podcaster's Guide to Transcribing Audio, written for podcasters but helpful for anyone new to transcribing audio (Join the Party Podcast)