

The roads to more inclusive (virtual) meetings in Astronomy.



EIJC special session

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Why is it important to have inclusive (virtual) meetings?

“(Faculty) interactions have a powerful effect on student retention in, or departure from, the major. Student’s sense of belonging increases with the number of faculty who get to know them as individuals and demonstrate support for their success” [AIP “The time is now” [report 2019](#)]

Why is it important to have inclusive (virtual) meetings? (II)

“Peer interactions are also very important, especially in mitigating or exacerbating imposter phenomenon and stereotype threat. When meetings and organizations are inclusive and supportive of all students, they can provide valuable peer support [AIP “The time is now” [report 2019](#)]

Overarching framework:

Astronomers should have equitable opportunities for learning and participating in meetings, regardless of their race, ethnicity, sexual orientation, gender, religion, linguistic or socioeconomic background, ability, and more.

What concrete moves can we make to foster an optimal environment for learning, which encourages engagement, authenticity, and respect?

Overarching framework:

“Meetings and workshops are where scientists exchange ideas, foster collaboration, and reconnect with colleagues. Even as virtual interactions become commonplace, gathering in physical locations is still essential for building relationships and trust, being exposed to new ideas, and bridging perspectives on challenging problems. However, not all scientists have the opportunity to fully contribute at scientific meetings, and their attendance doesn’t guarantee that their ideas are heard or valued” <https://eos.org/opinions/scientific-meetings-for-all>

Goal EIJC meeting today:

1. Address awareness regarding barriers to (fully) participate in meetings
2. Brainstorm on ideas to overcome some of these barriers.

Deliverable: we aim to distribute a collected list with also your ideas for more inclusive meetings to CfA-wide after today's session.

Why is it important to have inclusive (virtual) meetings?

- Inclusive meetings help to work towards a sense of belonging
- Makes it possible that a diverse group can participate
 - more ideas are generated from wide range of lived experiences
- Better enables building of relationships
- Establishes trust
- Allows previously silenced voices a chance to be heard
- Participants that are actively engaged/involved learn better/more
- The students/participants that speak in meetings are the ones that will be known
- Allows a more diverse group to voice their concerns

from EIJC meeting brainstorming | Examples of barriers (I):

- When you're the speaker and no one asks a question, you can feel excluded, too.
- Academic culture rewards aggressive/confident behavior.
- Afraid to ask questions because fear of thinking you should know something.
- Teacher or head of group making you feel your contribution is not of value.
- Individual context helps — if you don't have a personal relationship with whomever is leading the meeting, it makes it harder to engage.
- Fear of appearing stupid as a potential questioner; not clear how a leader can encourage participation.
- For virtual meetings: interjecting without using the raised hand feature (if available), especially if done by a senior scientist

from EIJC meeting brainstorming | Examples of barriers (II):

- Perceived barrier for being the only one representing a certain group
- For physical meetings: When senior scientists debate and argue among each other on a topic without sharing the air explicitly with junior scientists. The nature and expectation of meetings being for people to impress either with a presentation or question, presenting only polished work, no room for errors, idea of fitting into a false definition of excellence as perfection. Senior scientists telling junior scientists their work is wrong. Also when people only use their work, and no shout outs to other work, when telling you that you're wrong.
- Senior scientists take up too much space - think their opinions are more important than anyone else's... some people tend to take up more physical space (in person) and/or more time in the virtual meetings.
- Also in discussions, when having overly aggressive people dominate the conversation, not letting others talk. Or getting more aggressive if you disagree with them.

from EIJC meeting brainstorming | Examples of barriers (III):

- Language can represent a large barrier for non-native speakers of English
- When there are people in power who call out their colleagues for aggression, it can make a big difference to department culture and meetings.
- I've also noticed there are some departments whose astronomers seem to still be really into the aggressive questioning. A difference in scientific culture on what is acceptable, which can really clash at a conference or if you're a visitor
- network issues can hinder participation (is mitigated at least partially by turning off video - so perhaps vid should be optional)

What can we do?

Examples: before the meeting

- Consider using sans serif fonts, providing materials for lecture in advance of class for review, and using files that can be read aloud via text to voice software (avoid scanned pictures of text). A recent Boston Globe article entitled "[Digital Technologies and the Disabled](#)" highlights and personalizes these issues!
- Do not plan meetings outside of office hours if possible
- Try to create an environment where students do not feel pressured to work over the weekend / outside of office hours if they don't need to.
- Be clear about expectations for participating in the meetings.
- Encourage students to share ideas even if they are in the process of formulating them. Keep in mind that students who are not speaking may still be very engaged and paying close attention.

from EIJC meeting brainstorming | Examples inclusive meetings organisation:

- Discussion panels - make sure to have **varied representation** at all stages
- Blind selection of abstracts
- Organize and use the chat to ask questions, **anonymous polls**, figure out if people have questions this way
- Breaking up the meeting and checking if you're making sense to people (see above)
- Question yourself, pose a question, feed them questions or discussion topics for later
- Variety of activities (because people learn in variety of different ways)
- **Accessibility** - is the room you are in accessible to everyone? Not using a microphone should not be an option, for example. Our standards are not high enough, even today, how often do we think about people who are visually impaired, or when sitting in a chair, silently, listening to a line of speakers for extended periods of times is assumed to be the optimal way for people to pay attention.
- **Moderator training**. Act in a neutral role to uphold rules that are agreed on for meeting.

Examples: sense of belonging

- Know the names of people participating in your meeting!
- Get to know them -> have “ice breakers”
 - !Employ ice breakers that don’t flag class status. (e.g., Don’t ask where participants went for summer vacation, or for the name of their favorite restaurant).
- Stay interactive: use online tools like quizzes, polling etc. Possibilities include applications such as PollEverywhere
- Share stories--either your own or others’--about encountering academic challenges.
- Try to learn about the participants in your meeting. What excites them? What are they interested in getting out of these meetings?
- Provide opportunities for interactions
- Provide opportunities for introductions

Examples: during the meeting

- Ask “what are they interested in getting out of this meeting/seminars”
- Be mindful of language! (If you personally feel uncertain about what language to use when speaking about a particular identity or community, for instance, then do some research)
- Provide opportunities for students to participate in multiple ways, which might include online discussion board postings, in-class written responses, or small group work. Help students build confidence through “warm calling” (i.e., letting students know ahead of time that you will ask them to share their ideas). Visit this [tip sheet](#) for ideas on facilitating discussion and engagement
- Understand that cold calling can be especially hard on students who are less comfortable speaking
- Ask for “muddiest point” feedback at the end of a group meeting, out loud or in the form of individual exit notes. This lets students know that it is normal to find a least one concept confusing, and can encourage them to seek clarification.
- Make sure to end (and start) on time. Everyone’s time is precious. End, at minimal, 5 minutes before the full hour to allow people to have breaks between meetings.

from EIJC meeting brainstorming | Examples inclusive:

- Stand up for others - for example, if someone else is interrupted, meeting leader should stop the interrupter and let the first person finish
- Echo suggestions of others (especially if the others are spoken over)... “As _____ just said, ...”
- Organizers have the responsibility to create an open and inclusive space and engaging everyone in the room.
- Ensuring individuals are not taking up too much space
- People in power should be explicit in sharing the air: “What do the grad students think?”
- Encourage people who wouldn't ordinarily speak up, but without singling anyone out.
- Moderators/colloquium hosts need to set the tone, but hard for junior people to take on that role effectively.

from EIJC meeting brainstorming | Examples inclusive:

- Teachers berating students for mistakes
 - Put more of an emphasis on inviting students in and helping rather than chastising and correcting
 - 50% of people before the age of 50 will have some sort of diagnosable mental health disorder - teachers may not know why people are acting in a good way, they need to keep in mind that there may be underlying reasons
 - In other words: treat each student as an individual and don't shoehorn them into one category
 - Benchmark expected attitudes and behaviour with students and teachers
- Make sure junior people get talks - helps with confidence
- People in power can suggest their students/mentees for talks
- Need to give junior people more confidence about speaking
- Normalize mental health issues

Examples: engaging

- See document on the right from https://inquiryproject.terc.edu/shared/pd/TalkScience_Primer.pdf
- Ask everyone to raise their hands in zoom, and then who does not have a question should lower their hand
- Use polling / quizzes software/options
- Give participants thinking time
- Let participants come up with a question in smaller groups

Goals for Productive Discussions and Nine Talk Moves

Goal: Individual students share, expand and clarify their own thinking

1. Time to Think:

Partner Talk

Writing as Think Time

Wait Time

2. Say More:

"Can you say more about that?" "What do you mean by that?" "Can you give an example?"

3. So, Are You Saying...?:

"So, let me see if I've got what you're saying. Are you saying...?" (always leaving space for the original student to agree or disagree and say more)

Goal: Students listen carefully to one another

4. Who Can Rephrase or Repeat?

"Who can repeat what Javon just said or put it into their own words?" (After a partner talk) "What did your partner say?"

Goal: Students deepen their reasoning

5. Asking for Evidence or Reasoning:

"Why do you think that?" "What's your evidence?" "How did you arrive at that conclusion?"
"Is there anything in the text that made you think that?"

6. Challenge or Counterexample:

"Does it always work that way?" "How does that idea square with Sonia's example?"
"What if it had been a copper cube instead?"

Goal: Students think with others

7. Agree/Disagree and Why?:

"Do you agree/disagree? (And why?)" "Are you saying the same thing as Jelya or something different, and if it's different, how is it different?" "What do people think about what Vannia said?"
"Does anyone want to respond to that idea?"

8. Add On:

"Who can add onto the idea that Jamal is building?"
"Can anyone take that suggestion and push it a little further?"

9. Explaining What Someone Else Means:

"Who can explain what Aisha means when she says that?" "Who thinks they could explain in their words why Simon came up with that answer?" "Why do you think he said that?"

from EIJC meeting brainstorming | Examples asking questions / interactive:

- Explicitly teach students how to ask questions
- Teach teachers explicitly to elicit questions from students.
 - Especially underrepresented groups may be less comfortable speaking up and teachers should try to help everyone feel comfortable speaking up.
- Organize Introductions - if people speak they are more often to feel involved
- Stacking questions - call on junior scientists first, etc.
- Remind speakers to introduce topics with the expectation that there are non-experts in the room
- Thoughtful language; be careful of jargon

from EIJC meeting brainstorming | Examples asking questions / interactive:

- Wait time: Wait 6 seconds before calling on anybody. Be comfortable with silence.
- Call on as many people as possible
- Create a question bank with paper or technology (Zoom Chat or Q&A or Slack or Discord)
- When you're moderating, have a question or two ready if no one responds.
- Break into smaller groups and then back, especially in large Zoom meetings
- For teaching- it can be really helpful to model question asking- for example "when I first saw this graph/idea.etc I wondered....."

Examples: meeting norms and values

- Explain ground rules/expectations at beginning of a meeting
 - ask people to limit the multi-tasking (and especially the facilitator should not do this as things might happen during the meeting that need attention!)
- make your group norms more explicit;
- Have an anonymous form where participants can submit suggestions for the meeting
- Make sure in collaborations participants have someone to go to for flagging microaggressions and/or other forms of harassment during the meeting.
- Have a meeting code-of-conduct (or meeting “expectations”) that you discuss at the beginning of a meeting series and send around over email.
- have students/participants themselves articulate the ground rules they need for an effective learning environment; (and post them through email as follow-up)
- Have an ombudsperson or other point of contact where participants of the meeting can go to if they experience any unwanted behavior.

from EIJC meeting brainstorming | Set meeting expectations and norms:

Bad behavior - it is important (for those in charge) to establish precedent and **norms**.

Code of conduct: **Rules should be written down and circulated before the meetings.**

Example guidelines/norms from Benita Wolff, Equity and Inclusion Administrative Fellow of FAS Division of Science, Harvard:

- Listen respectfully, without interrupting.
- Listen actively and with an ear to understanding others' views. (Don't just think about what you are going to say while someone else is talking.)
- Criticize ideas, not individuals.
- Commit to learning, not debating. Comment in order to share information, not to persuade.
- Avoid blame, speculation, and inflammatory language.
- Allow everyone the chance to speak.
- Avoid assumptions about any member of the class or generalizations about social groups. Do not ask individuals to speak for their (perceived) social group.

from EIJC meeting brainstorming | Set meeting expectations and norms (II):

Example norms/guidelines from EIJC community guidelines: <https://ejc.fas.harvard.edu/community-guidelines>:

Intent is not impact

Give credits (*props*)

Lean into discomfort

What's learned leaves here; what's said here stays here

Admit ignorance

Oops/ouch!

Share the air

Assume good intentions

Step up / step back

Beware of overgeneralizing (~be precise: define terms)

Actively listen

Be patient

Be mindful of your own privilege(s)

Examples: inclusive conferences

- “Recommendations for Planning Inclusive Astronomy Conferences, Inclusive Astronomy 2 Local Organizing Committee, July 2020”,
[:https://outerspace.stsci.edu/display/IA2/LOC+Recommendations?preview=/76153680/76153699/IA2%20LOC%20Recommendations.docx](https://outerspace.stsci.edu/display/IA2/LOC+Recommendations?preview=/76153680/76153699/IA2%20LOC%20Recommendations.docx)
- Discussion panels - make sure to have varied representation at all stages
- Blind selection of abstracts

Example: Meetings in COVID-19 times:

It is very important to explicitly acknowledge the constraints that come with virtual environments such as video conference calls, as well as the added stressors that are compounded with a global pandemic. COVID-19 has affected people in various ways, including the requirement to socially distance and use video conferencing to conduct meetings. It is important to acknowledge that it is challenging, but not impossible, to make virtual environments feel more inclusive. Also, being a model for how to face a global health crisis with compassion, positivity, calmness and proper perspective goes a long way with participants in virtual settings.

Synchronous virtual meetings might be difficult or impossible for some people to manage, given their household responsibilities (i.e. childcare, home-schooling, eldercare), or barriers such as insufficient broadband or hardware for video conference calls. The key to inclusivity in these types of settings is to hold reasonable expectations and to remain flexible with folks in their ability to participate.



On Multi-tasking during meetings/class:

Broadly, we are not wired to multitask well (e.g. [Mayer and Moreno](#)), and using cell phones during class is no exception. Several studies have compared students who texted during a lecture versus those who did not. Those who texted frequently took lower quality notes, retained less information, and did worse on tests about the material (e.g. see [Kuznekoff and Titsworth](#), and [Rosen et al](#)). Students themselves realize that cell phone usage does not promote learning; in [one survey](#), 80% of students agreed that using a mobile phone in class decreases their ability to pay attention.

What is worse is that mobile device usage is distracting to neighboring students/participants. In several [surveys](#), students have reported that texting is distracting to nearby students. A [study on laptops](#) in a simulated classroom found that students in the vicinity of another student who was multitasking on a laptop during class scored worse on a test than those who were not near multitaskers. While cell phone screens are smaller—and thus perhaps less distracting—than a laptop, one could reasonably expect that a similar phenomenon of distraction applies to cell phones.

Whether laptops should be allowed in the classroom may be a bit more nuanced, as some students prefer to take notes on their computer. However, the temptation for distraction is large. [Fried](#) found that most students using a computer in class spend considerable time on activities not related to taking notes, and furthermore identified a negative correlation between student success in class and in-class laptop use. Additionally, as mentioned above, neighboring students are easily distracted when a student on a computer strays from the immediate task at hand. For best practices about using laptops in the classroom, see this [guide](#) created by Michigan's Center for Research on Teaching and Learning.

Be aware when banning laptops at all! Some participants with dyslexia, ADHD, or visual impairments use computers to take notes and to access cloud-based assistive technologies

Source: <https://bokcenter.harvard.edu/technology-and-student-distraction>,
<https://www.edutopia.org/video/theres-cell-phone-your-students-head>

How to respond to inappropriate sayings during a meeting:

Understand the situation. It's possible that, in the heat and complexity of the moment, there has been some misunderstanding. Maybe someone has misspoken or you've mistaken their meaning. Others in the room may be in the same situation, wondering whether they've heard and understood a comment correctly, for instance. It's important to make sure that your understanding of the situation is as accurate as possible and sensitive to the different perspectives present in the room. It may be fitting to ask the person or people involved for further explanation or clarification. If the difficult moment was sparked by a comment, you could try repeating back the comment or its logical implications – not as an accusation, but to allow the speaker to clarify their meaning. You might ask: “What makes you say that?” or “Can you say more about what you mean?” Try to discern if there is a learning opportunity here, or perhaps a need for articulating boundaries.

Consider your long-term response. Your short-term response to a difficult moment need not be your only response. Do you think the moment requires follow-up action so that future classes aren't negatively affected? Would it be helpful to check-in with the class or certain individuals either via email or during the next class meeting? If you perceived harm being done or unease being instigated, you may offer to talk with a student or students after class, over email or in-person. You may also consider how chances for feedback and communication of personal experience might be incorporated in the ongoing class structure. Perhaps invite everyone to write or share exit notes at the end of every class, or maybe you [collect feedback](#) at several points throughout the semester. Regular opportunities to articulate one's experience in a course can do much toward alleviating the pressure placed on any one emotionally intense moment; they also help cultivate a practice of reflection and self-awareness.

<https://bokcenter.harvard.edu/navigating-difficult-moments>

References for material used in these slides:

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