Bias Mitigation in Peer Review Training for Program Staff

September 2023

Health Research Alliance

Overview

- Review the goals of the training
- Outline the content and structure of the training
- Present data from the pilot training process

Bias Mitigation Training Working Group

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- Jessica Biddinger, *National Senior Director, American Heart Association*
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- Kevin Sia, *Program Officer for Medical Research, Doris Duke Foundation*
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Bias Mitigation in Peer Review Training

Goals

Equip participants to recognize and mitigate bias during peer review

- Define bias, including types of bias and different manifestations of bias
- Describe how bias can impact the review process
- Identify strategies for mitigating bias during the review process

Audience

Program Staff at HRA member organizations

- **78%** (n=38/49) of HRA members who responded to an interest survey about bias training said training would be beneficial for program staff
- Future iterations of the training will target reviewers

Format

Asynchronous, self-paced training

Priorities when designing format:

- Balance between brevity and completeness (30-40 min)
- Accessibility (delivery platform can be navigated by screen readers; content includes audio voiceovers and captions)

Health Research Alliance Bias Mitigation in Peer Review Training for Program Staff

Bias Mitigation in Peer Review Training for Program Staff

from the Health Research Alliance

Training Overview

Welcome to the Health Research Alliance Bias Mitigation in Peer Review training for **program staff**!

Bias in peer review of grants and fellowships can affect funding decisions and lead to inequitable outcomes. This training will define bias, discuss how bias can occur and present during peer review, and outline strategies that can mitigate the impact of bias on decision making. The content of this training is situated within the context of peer review of grants, and the strategies and examples presented within the training are most directly relevant for staff at organizations who include live review committee meetings as part of their review process, though those who have other peer review processes may still find the information valuable.

This training will take approximately 30-40 minutes to complete, and is best viewed within a desktop browser rather than on a mobile device. Portions of this training are videos containing audio voiceovers, and closed captions are available. The training is comprised of three modules which must be completed in sequential order. Click on Module 1 below to get started.

Module 1:
Basics of Bias

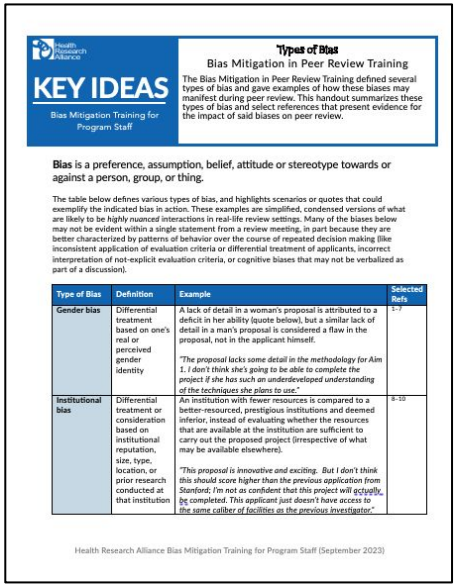
Module 2:
Bias in Peer Review

Module 3:
Strategies for Mitigating Bias

Module contents and structure

01	**Basics of Bias**	• High-level overview of bias • Definitions of conscious/unconscious bias • Short narrated video
02	**Bias in Peer Review**	• Research on the effect of different types of bias on peer review (e.g., gender, institution, race) • Examples of these biases in the context of peer review • Short narrated video, case study of a review meeting
03	**Strategies for Mitigating Bias**	• Structural measures to limit opportunities for bias during review meetings • Sample language to question bias during discussion • Short narrated video, case study demonstrating implementation of questioning language

Supplemental resources



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KEY IDEAS

Bias Mitigation Training for Program Staff

Types of Bias

Bias Mitigation in Peer Review Training

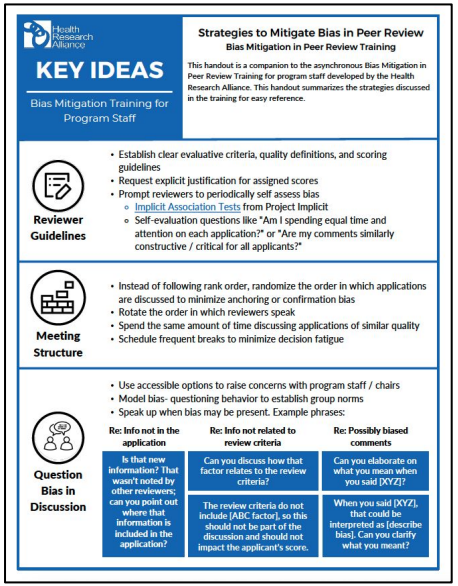
The Bias Mitigation in Peer Review Training defined several types of bias and gave examples of how these biases may manifest during peer review. This handout summarizes these types of bias and select references that present evidence for the impact of said biases on peer review.

Bias is a preference, assumption, belief, attitude or stereotype towards or against a person, group, or thing.

The table below defines various types of bias, and highlights scenarios or quotes that could exemplify the indicated bias in action. These examples are simplified, condensed versions of what are likely to be *highly nuanced* interactions in real-life review settings. Many of the biases below may not be evident within a single statement from a review meeting, in part because they are better characterized by patterns of behavior over the course of repeated decision making (like inconsistent application of evaluation criteria or differential treatment of applicants, incorrect interpretation of not-explicit evaluation criteria, or cognitive biases that may not be verbalized as part of a discussion).

Type of Bias	Definition	Example	Selected Refs
Gender bias	Differential treatment based on one's real or perceived gender identity	A lack of detail in a woman's proposal is attributed to a deficit in her ability (quote below), but a similar lack of detail in a man's proposal is considered a flaw in the proposal, not in the applicant himself. *"The proposal lacks some detail in the methodology for Aim 1. I don't think she's going to be able to complete the project if she has such an underdeveloped understanding of the techniques she plans to use."*	1-7
Institutional bias	Differential treatment or consideration based on institutional reputation, size, type, location, or prior research conducted at that institution	An institution with fewer resources is compared to a better-resourced, prestigious institutions and deemed inferior, instead of evaluating whether the resources that are available at the institution are sufficient to carry out the proposed project (irrespective of what may be available elsewhere). *"This proposal is innovative and exciting. But I don't think this should score higher than the previous application from Stanford; I'm not as confident that this project will actually be completed. This applicant just doesn't have access to the same caliber of facilities as the previous investigator."*	8-10

Health Research Alliance Bias Mitigation Training for Program Staff (September 2023)



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KEY IDEAS

Bias Mitigation Training for Program Staff

Strategies to Mitigate Bias in Peer Review

Bias Mitigation in Peer Review Training

This handout is a companion to the asynchronous Bias Mitigation in Peer Review Training for program staff developed by the Health Research Alliance. This handout summarizes the strategies discussed in the training for easy reference.

Reviewer Guidelines

- Establish clear evaluative criteria, quality definitions, and scoring guidelines
- Request explicit justification for assigned scores
- Prompt reviewers to periodically self assess bias
  - Implicit Association Tests from Project Implicit
  - Self-evaluation questions like "Am I spending equal time and attention on each application?" or "Are my comments similarly constructive / critical for all applicants?"

Meeting Structure

- Instead of following rank order, randomize the order in which applications are discussed to minimize anchoring or confirmation bias
- Rotate the order in which reviewers speak
- Spend the same amount of time discussing applications of similar quality
- Schedule frequent breaks to minimize decision fatigue

Question Bias in Discussion

- Use accessible options to raise concerns with program staff / chairs
- Model bias- questioning behavior to establish group norms
- Speak up when bias may be present. Example phrases:

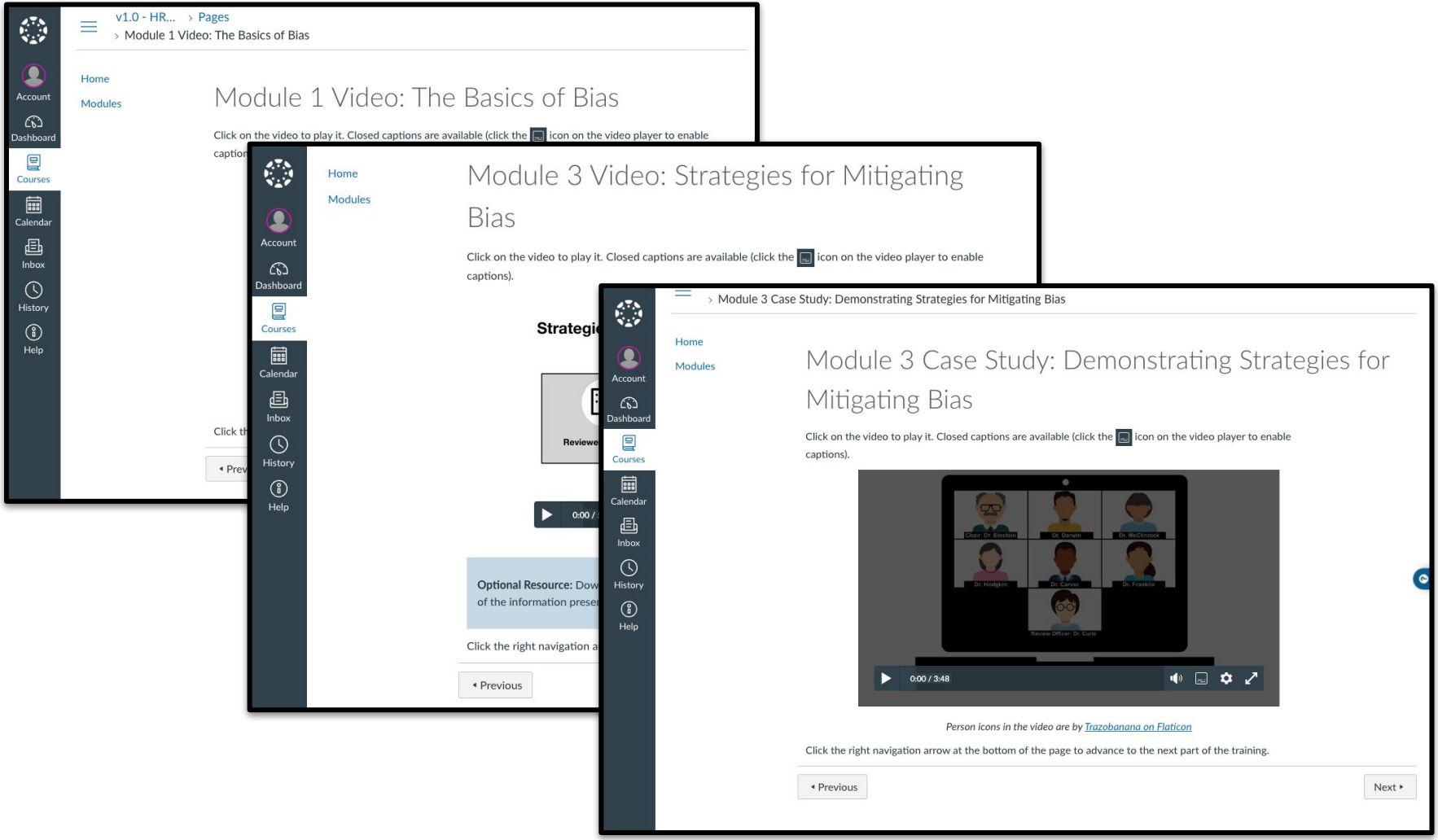
Re: Info not in the application	Re: Info not related to review criteria	Re: Possibly biased comments
Is that new information? That wasn't noted by other reviewers; can you point out where that information is included in the application?	Can you discuss how that factor relates to the review criteria?	Can you elaborate on what you mean when you said [XYZ]?
	The review criteria do not include [ABC factor], so this should not be part of the discussion and should not impact the applicant's score.	When you said [XYZ], that could be interpreted as [describe bias]. Can you clarify what you meant?

Types of Bias handout

- Definitions of various types of bias
- Examples of behavior or statements
- Selected references

Strategies to Mitigate Bias handout

- One-page reference document
- Bias mitigation strategies outlined in the training
- Example statements to question bias in conversation


v1.0 - HR... › Pages
› Module 1 Video: The Basics of Bias
Account
Dashboard
Courses
Calendar
Inbox
History
Help
Home
Modules
Module 1 Video: The Basics of Bias
Click on the video to play it. Closed captions are available (click the icon on the video player to enable
Module 3 Video: Strategies for Mitigating Bias
Click on the video to play it. Closed captions are available (click the icon on the video player to enable captions).
Optional Resource:
Click the right navigation a
Previous
› Module 3 Case Study: Demonstrating Strategies for Mitigating Bias
Module 3 Case Study: Demonstrating Strategies for Mitigating Bias
Click on the video to play it. Closed captions are available (click the icon on the video player to enable captions).
0:00 / 3:48
Person icons in the video are by Trazobanana on Flaticon
Click the right navigation arrow at the bottom of the page to advance to the next part of the training.
Previous
Next

Training Development and Implementation

May - June 2023

Pilot Test (Version 0.5)

10 - 30 individuals from 10+ organizations complete the draft training and provide feedback via survey and focus groups

June - August 2023

Iterate & Redesign (Version 0.5 -> 1)

Compile feedback from pilot testers and incorporate changes based on said feedback.

September 2023

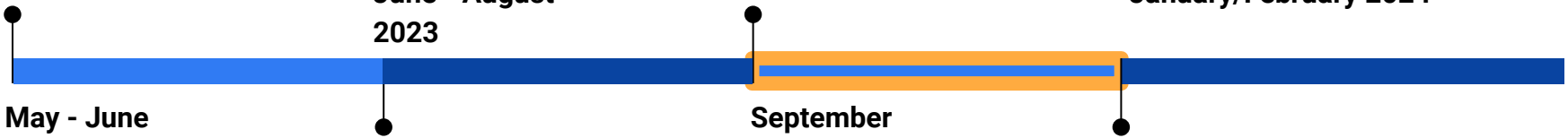
Distribute Version 1.0 to HRA Members

Full launch of the asynchronous training module for program staff, available to all HRA members.

~January/February 2024

Iterate & Redesign (Version 1.0 -> 2.0)

Compile feedback from Version 1.0 users via embedded evaluation survey and incorporate changes based on said feedback.



Pilot Training (May - June)

Pilot Objectives:

- Collect formative qualitative feedback about relevance, utility, and accessibility
- Identify elements that should be revised before the training is available to all HRA members
- Pilot survey questions that may be used to evaluate the effectiveness of subsequent versions

Participants

Signed up: 40 (22 orgs) →

Training + Surveys

Pre-Training Survey: 29

↓

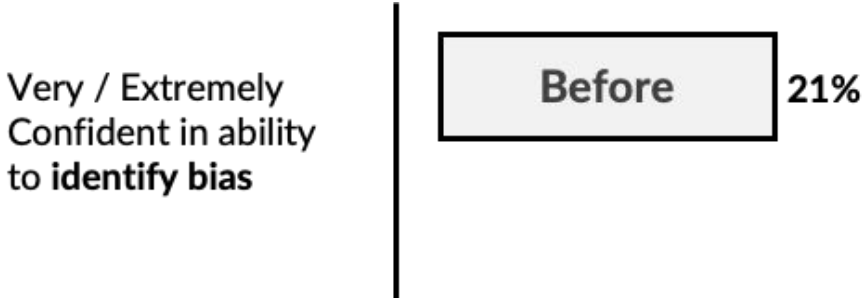
Post-Training Survey: 25

Focus Groups

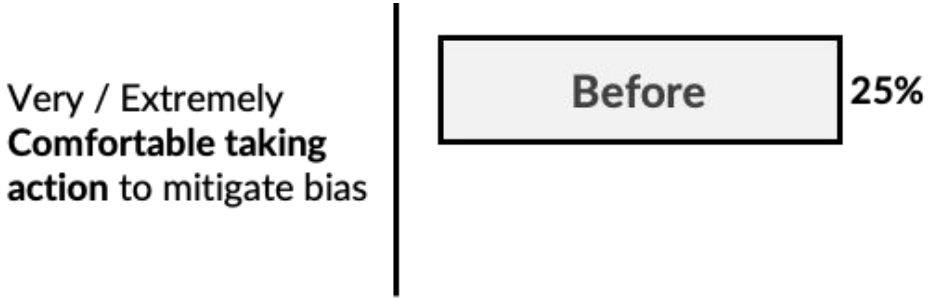
Attended: 15 (11 orgs)

Pilot Training: Impact on participants

How **confident** are you in your **ability to identify bias** during the review process?



How **comfortable are you taking action to mitigate bias** during the review process?



Participants experience with the training

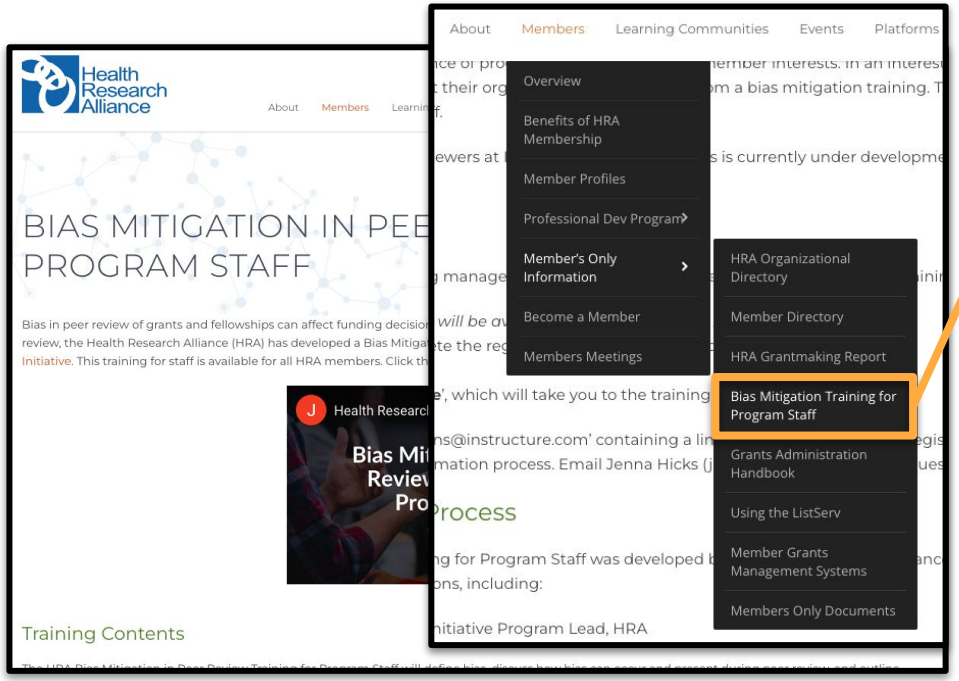
Participants thought that the training was…

Future Bias Mitigation Training plans

- Begin development of a training for scientific reviewers (aiming for launch in ~January 2024)
- Develop facilitator guides and discussion materials to facilitate use of the training materials outside of the asynchronous online training

Training Access

HRA Homepage > Members > Members Only Information > Bias Mitigation Training for Program Staff



- Access instructions are on this page
- The training is hosted on a learning management system (Canvas)
- Go to canvas.instructure.com /enroll/H8CRWA

healthra.org/members/members-only-information/bias-mitigation-peer-review-training/

Q&A

Contact Jenna with additional questions: jenna@healthra.org