Supplemental Materials
for
Applied Theatre Facilitates Dialogue about Career Challenges for Scientists

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### Appendix 1: Supplemental Table 1: Sample scenarios for group skits and discussion.

<table>
<thead>
<tr>
<th>Interaction with:</th>
<th>Scenario Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unexpected family situations</td>
<td>You are a new faculty member at Every University, where you are responsible for teaching the department’s 30-student Cell Biology course. One day, 10 minutes before your course is due to start, your young child’s school calls to let you know that your child needs to be picked up right away due to an emergency at the school. Your significant other is out of town and cannot help you with this.</td>
</tr>
<tr>
<td>Students</td>
<td>You are a new faculty member at Best University, where you teach a large Cell Biology course (80 students enrolled). At mid-semester, you find yourself frustrated with a couple of students who have developed the habit of challenging your authority in class.</td>
</tr>
<tr>
<td></td>
<td>You are a junior faculty member at the Department of Cell Biology at Home University, where you have your own research lab and have recently successfully recruited a couple of graduate students and rotation students. One day you come to the realization that your students’ cultural and ethnic background mirrors your own.</td>
</tr>
<tr>
<td>Departmental colleagues</td>
<td>You are a new faculty member at Y College. You start to notice that other faculty members in your department appear to be monitoring your work closely. For example, they constantly casually swing by your classroom and laboratory to see how things are going and what you are doing.</td>
</tr>
<tr>
<td></td>
<td>You are industriously working away in your new office when one of your colleagues comes in and has a seat. Your colleague begins to gossip about another faculty member.</td>
</tr>
<tr>
<td></td>
<td>You are a junior faculty member at the Department of Biology at Beach University (BU), a department well-known for its outreach efforts within the local community, which consists largely of underrepresented minorities. You have been recruited by your chair to coordinate and supervise undergraduate and graduate students creating a variety of exhibits to teach the general public about basic concepts in cell biology at an upcoming BU-sponsored DNA Day at the neighboring science museum. The event is a success, but you later receive an e-mail from a colleague harshly criticizing some of the exhibits that were pictured in the newsletter. After a little research, you realize your colleague did not actually have time to attend DNA Day and is drawing conclusions about the exhibits based solely on the pictures that were published in the newsletter.</td>
</tr>
<tr>
<td>More senior colleagues</td>
<td>You are a new faculty member at College University. And as such, you have been automatically enrolled in the junior faculty mentoring program, where you are assigned a colleague mentor to serve as a touchstone until the time you come up for tenure. After 6 months in the program you realize that there have been instances where you think you have been misguided by your mentor’s direction. You try to diagnose the problem and the only thing you can come up with is that there are some striking demographic differences between you and your assigned mentor.</td>
</tr>
<tr>
<td></td>
<td>You are a post-doc in the Neurobiology Department at University X. You have been in the department for over a year. As you walk into the room for the departmental weekly seminar, you are asked by a senior faculty member if you are the audio/visual technician.</td>
</tr>
<tr>
<td>Colleagues at other institutions</td>
<td>You have been asked by a colleague to facilitate a strategic planning retreat for the Biology Department at X University. You agree to be part of a team of facilitators. You arrive on campus dressed in a nice pantsuit and find your way to the meeting room. You and your co-facilitator are getting your lunches from the buffet when a faculty member walks up to you. He tells you there is no silverware and asks you to bring more.</td>
</tr>
<tr>
<td>Department chair</td>
<td>As a junior faculty member, you have been asked to assume responsibility for the departmental seminar program. While the offer comes with no budget, you know that you can leverage your professional network to bring in a diverse group of speakers. Your chair says this will be of value to the department. However, you are already on several departmental and university committees and your institution is making a shift toward the expectation of higher research productivity.</td>
</tr>
</tbody>
</table>
Appendix 2: Supplemental Table 2: Participant responses to reflection questions.

**Reflection Question 1. What made this exercise difficult?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>This exercise was pretty straightforward. The scenarios were broad and could have been played out in several different ways.</td>
<td></td>
</tr>
<tr>
<td>The exercise was difficult because the scenario was vague enough that it was left up to interpretation as to how far to take the scenario.</td>
<td></td>
</tr>
<tr>
<td>Feeling conscious about not hurting someone’s feelings with choice of words or scenarios.</td>
<td></td>
</tr>
<tr>
<td>The most challenging aspect was how to show the scenario as a skit when there could be multiple potential interpretations or situations to present.</td>
<td></td>
</tr>
<tr>
<td>Establishing appropriate skits to best represent the scenario of interest.</td>
<td></td>
</tr>
<tr>
<td>It was not easy figuring out the correct response to many of the scenarios. Navigating the power dynamic in response to certain situations.</td>
<td></td>
</tr>
<tr>
<td>Mostly that I would not know how to handle some of the situations discussed.</td>
<td></td>
</tr>
<tr>
<td>Playing a role that didn’t match my personality or values. Also not comfortable acting in front of people.</td>
<td></td>
</tr>
<tr>
<td>The situations were very close to experiences we’ve had.</td>
<td></td>
</tr>
<tr>
<td>Some situations have actually happened to me. And in general I have scooted things under the rug. I actually realized that several instances in my career where these scenarios affected my perception of myself.</td>
<td></td>
</tr>
<tr>
<td>It was difficult to bring back these dark experiences.</td>
<td></td>
</tr>
<tr>
<td>It was not a difficult exercise.</td>
<td></td>
</tr>
<tr>
<td>It was (...) difficult to make microaggressions micro when trying to bring it to the forefront.</td>
<td></td>
</tr>
<tr>
<td>Not understanding people’s intent during certain interactions to prompt a proper reaction.</td>
<td></td>
</tr>
<tr>
<td>I’m an introvert, acting is hard.</td>
<td></td>
</tr>
<tr>
<td>It was really realistic. We did not find out until afterward that these were actual scenarios. They both pissed me off and made me feel bad.</td>
<td></td>
</tr>
<tr>
<td>Putting myself in the situation and doing some self-assessment.</td>
<td></td>
</tr>
<tr>
<td>Trying to convey a message clearly to a diverse audience with very different background.</td>
<td></td>
</tr>
<tr>
<td>Hard to know how to portray the scene, which part to really emphasize.</td>
<td></td>
</tr>
<tr>
<td>It’s hard to see people mistreated even though you know and see these things, watching them is hard because you hope things will change.</td>
<td></td>
</tr>
<tr>
<td>Just thinking of how to act out the exact situation especially when one is aware that the skit is viewed as a microagression scenario.</td>
<td></td>
</tr>
</tbody>
</table>

**Reflection Question 2. What did you learn from this exercise about the challenges that might arise?**

<table>
<thead>
<tr>
<th>Learning</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some can really seem brutal during the process, but (...) just makes your skin tougher and gives you a chance to reflect and figure out what you could have done differently.</td>
<td></td>
</tr>
<tr>
<td>I learned that the tone and inflection matter a lot when addressing people and that what one person may take as just addressing a person may be personally offensive.</td>
<td></td>
</tr>
<tr>
<td>How often they (these scenarios) actually happen!</td>
<td></td>
</tr>
<tr>
<td>I learned that many difficult scenarios of microaggressions could arise and there could be an effective way to confront them while or after it happens and asking for advice/help from a trusted mentor could help.</td>
<td></td>
</tr>
<tr>
<td>Reminder of the importance of keeping in mind perspective and different points of view. Suggestions for strategies to cope with difficult situations.</td>
<td></td>
</tr>
<tr>
<td>Communicate your feelings. Find a mentor that will advocate for you.</td>
<td></td>
</tr>
<tr>
<td>I learned about microaggressions and how sometimes I don’t identify them. This has definitely opened my eyes.</td>
<td></td>
</tr>
<tr>
<td>During the discussion I learned how frequently these situations happen.</td>
<td></td>
</tr>
<tr>
<td>How to correct other people when they make such assumptions. To think about how to come through situations like that without hurting your career.</td>
<td></td>
</tr>
<tr>
<td>Some things that have happened like it. It needed a response or action from myself, even if I treaded lightly.</td>
<td></td>
</tr>
<tr>
<td>I learned alternative approaches to deal with difficult situations.</td>
<td></td>
</tr>
<tr>
<td>I learned how to deal with the challenges that may arise. We discussed strategies and ways to cope.</td>
<td></td>
</tr>
<tr>
<td>I learned ways to deal with microaggressions without making a scene of things.</td>
<td></td>
</tr>
<tr>
<td>Sometimes they are not directly related to race and it is okay to speak to the person you are interacting with about it.</td>
<td></td>
</tr>
<tr>
<td>That stereotypes, microagression is quite common and that it’s not something that only happens to me. I also learned that I have people that I can talk to about these issues.</td>
<td></td>
</tr>
<tr>
<td>Not all situations are interpreted one way.</td>
<td></td>
</tr>
</tbody>
</table>
We have so many possible challenges that might come up in our everyday experiences.

Be more assertive but strategic in my assertiveness

It is a difficult process to grasp. Sometimes we do things that are not under our control. They are deep inside us and are attached to our own culture.

Learned how to handle situations better as a minority scientist in a healthy manner.

I hadn’t thought about the microaggressions from other faculty members that may act as though they doubt your abilities.

I learned about the different types/forms of microaggressions, how to identify the scenarios and possible ways to react to these scenarios.

**Reflection Question 3. What did you like about this exercise?**

The opportunity to see various scenarios and the pros and cons of each as well as the additional discussion after each.

Hearing about strategies to deal with different situations and what people have actually done in the past.

It was great! Very interactive and provided the opportunity to hear different perspectives and experiences.

The discussion and exploration of the issues.

We heard many suggestions for helping cope and deal with certain situations. Good to hear a diverse group of responses.

I liked very much how acting out and sometimes exaggerating the situations that come up.

I liked the discussions that followed. The opportunities people had to share their stories.

It helps us confront such experiences and cope with them.

It was a useful means of addressing complications in the workplace.

It was a very safe place to discuss challenging experiences.

I like that we are aware of these scenarios and hopefully will make a conscious effort to not be involved in them.

I liked how we were able to learn about the scenarios without having to take it too seriously.

Getting different people’s opinion about the same scenario.

Having new perspectives and solutions

Out-of-the-box, hands-on, experience-based

I enjoyed that everyone got into it and that we were able to laugh about it and discuss the problems.

I enjoyed the interaction.

The exercise allowed me to think about issues that sometimes may not be recognized as microaggression.

Very real cases from real life scenarios. Very applicable to future situations as a faculty minority or underrepresented groups.

It was fun to act through

It was nice to come up with alternative approaches to handle these potential situations.
Appendix 3: Supplemental Table 3: Themes in participants’ reflections: coding schema*.

### Q1: What made this exercise difficult?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Participant Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar situations happened to me</td>
<td>1</td>
</tr>
<tr>
<td>I should have responded to similar situation that happened to me</td>
<td>1</td>
</tr>
<tr>
<td>Frequency of scenarios happening</td>
<td>2</td>
</tr>
<tr>
<td>Did not know how to handle situations</td>
<td>1</td>
</tr>
<tr>
<td><strong>Broad and vague scenarios</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>Navigating the power dynamic</td>
<td>1</td>
</tr>
<tr>
<td><strong>Being conscious of other people’s feelings during skits</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Playing a role that did not match personality or values</td>
<td>3</td>
</tr>
<tr>
<td><strong>Stage fright or uncomfortable acting</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Hard recalling similar situations that happened to me</td>
<td>1</td>
</tr>
<tr>
<td>Not difficult</td>
<td>2</td>
</tr>
<tr>
<td>Hard to watch people being mistreated</td>
<td>1</td>
</tr>
</tbody>
</table>

### Q2: What did you learn from this exercise?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Participant Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should have responded to similar situation that happened to me</td>
<td>1</td>
</tr>
<tr>
<td>How to correct other people’s assumptions without hurting your career</td>
<td>3</td>
</tr>
<tr>
<td><strong>Learned about micro-aggressions or how to recognize them</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td>Need to find a mentor/advocate</td>
<td>2</td>
</tr>
<tr>
<td><strong>Importance of considering POV of others</strong></td>
<td><strong>4</strong></td>
</tr>
<tr>
<td><strong>Alternative coping and response strategies</strong></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td>Frequency of scenarios happening</td>
<td>4</td>
</tr>
</tbody>
</table>

### Q3: What did you like about this exercise?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Participant Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative coping and response strategies</td>
<td>10</td>
</tr>
<tr>
<td>Chance to act out scenarios</td>
<td>1</td>
</tr>
<tr>
<td>Chance to discussion response options</td>
<td>2</td>
</tr>
<tr>
<td>Chance to participate in session – unexpected at science meeting, fun</td>
<td>4</td>
</tr>
<tr>
<td>Sharing of personal stories</td>
<td>2</td>
</tr>
<tr>
<td><strong>Safe space for this discussion</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Made of aware of these situations</td>
<td>2</td>
</tr>
<tr>
<td>That these were real-life situations</td>
<td>1</td>
</tr>
</tbody>
</table>

### Q4: What did you dislike about this exercise?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Participant Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vagueness of instructions</td>
<td>4</td>
</tr>
<tr>
<td>Nothing</td>
<td>11</td>
</tr>
<tr>
<td>Disruptive experience</td>
<td>2</td>
</tr>
<tr>
<td>Stage fright, discomfort with acting</td>
<td>3</td>
</tr>
<tr>
<td>Lack of time to develop skit</td>
<td>2</td>
</tr>
<tr>
<td>All groups did not act out the response/solution</td>
<td>1</td>
</tr>
</tbody>
</table>

### Q5: What would make this exercise better for you?

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Participant Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups acting out response as well</td>
<td>2</td>
</tr>
<tr>
<td>Theme</td>
<td>Responses</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>More time for role-playing</td>
<td>1</td>
</tr>
<tr>
<td>More time for discussion on how to handle situation</td>
<td>2</td>
</tr>
<tr>
<td>Nothing</td>
<td>5</td>
</tr>
<tr>
<td><strong>More time to develop skit</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Going through more scenarios</strong></td>
<td>3</td>
</tr>
<tr>
<td>Smaller groups</td>
<td>1</td>
</tr>
<tr>
<td>More explanation or mini-skit already done</td>
<td>2</td>
</tr>
<tr>
<td>More MAC and speakers sharing own experiences or from participants</td>
<td>2</td>
</tr>
<tr>
<td>Learning how to distinguish between misunderstanding, micro-aggression and ethical misconduct</td>
<td>1</td>
</tr>
<tr>
<td>Some situations foreign, others “struck a chord”</td>
<td>1</td>
</tr>
</tbody>
</table>

*Themes in **bolded font**=3 or more responses; themes in *red bolded font*=8 or more responses.*