



Project Name: Mapping your success - Program Evaluation Design	
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Program and Participant Characteristics	Program Evaluation Questions
<p>Program type (Please check all that apply):</p> <p><input type="checkbox"/> Curriculum. <input type="checkbox"/> Out-of-school program</p> <p><input type="checkbox"/> Exhibit multimedia <input type="checkbox"/> Interactive</p> <p><input checked="" type="checkbox"/> Teacher PD</p> <p><input checked="" type="checkbox"/> Research experiences for students & teachers</p> <p><input checked="" type="checkbox"/> Other: Program Evaluation</p>	
<p>Setting(s): <input type="checkbox"/> Formal <input type="checkbox"/> Informal</p>	
<p>Types of participants</p> <p><input checked="" type="checkbox"/> Students <input checked="" type="checkbox"/> Teachers <input checked="" type="checkbox"/> Scientists</p> <p><input checked="" type="checkbox"/> Families <input checked="" type="checkbox"/> Public</p> <p><input checked="" type="checkbox"/> Institutions</p>	
<p>Grade level(s) of participants.</p> <p><input type="checkbox"/> PreK <input type="checkbox"/> Elementary (K-5) <input checked="" type="checkbox"/> Middle (6-8)</p> <p><input checked="" type="checkbox"/> High (9-12) <input checked="" type="checkbox"/> Adult</p>	
<p>Characteristics of the populations you serve relative to DEIA: BIOPOC</p>	
<ol style="list-style-type: none"> 1.) What is culturally responsive program evaluation? 2.) Why is program evaluation critical to the success of my program? 3.) How can we engage with the people we intend to serve to ensure we are addressing workforce needs? 4.) What metrics will help to demonstrate the impacts and the return on investment (ROI) of the program? 	

Evaluation	Key Accomplishments and/or Findings																																																				
<p>Constructs measured. X Content knowledge X Skills X Science X Career awareness X Attitudes X Quality or FOI X: Culturally Responsive Evaluation</p>	<p>In a retrospective survey, visiting scientists from St. Jude showed growth in their ability to share their research with high school students before and after participating in the MemSTEMM Ambassador workshops.</p> <p>● Before ● After ◆ % Growth</p> <table border="1"> <thead> <tr> <th>Statement</th> <th>Before</th> <th>After</th> <th>% Growth</th> </tr> </thead> <tbody> <tr> <td>I can reduce complex scientific jargon into simpler topics appropriate for high school students.</td> <td>3.7</td> <td>4.9</td> <td>33%</td> </tr> <tr> <td>I can talk to high school students in an engaging way about science.</td> <td>3.7</td> <td>4.8</td> <td>30%</td> </tr> <tr> <td>I am confident presenting an interactive scientific talk to high school students.</td> <td>4.0</td> <td>4.9</td> <td>22%</td> </tr> <tr> <td>I can influence high school students to consider a career in STEMM.</td> <td>3.7</td> <td>4.4</td> <td>21%</td> </tr> <tr> <td>I can gauge my audience's level of interest and adjust my talk appropriately.</td> <td>3.7</td> <td>4.4</td> <td>21%</td> </tr> <tr> <td>I can tell my story through images using appropriate colors, tones, and layouts.</td> <td>4.2</td> <td>4.8</td> <td>13%</td> </tr> <tr> <td>I know how to deliver a talk with authenticity.</td> <td>4.3</td> <td>4.8</td> <td>10%</td> </tr> <tr> <td>It is important that high school students, particularly those in underrepresented groups, see that they can participate in STEMM careers.</td> <td>4.8</td> <td>5.0</td> <td>5%</td> </tr> <tr> <td>Scientific communication can help mitigate the impact of misinformation.</td> <td>4.9</td> <td>5.0</td> <td>2%</td> </tr> <tr> <td>I am capable of taking feedback to improve my presentations.</td> <td>4.9</td> <td>5.0</td> <td>2%</td> </tr> <tr> <td>The public can learn about science from scientists.</td> <td>4.8</td> <td>4.8</td> <td>0%</td> </tr> <tr> <td>I am excited to present my scientific talk to high school students.</td> <td>5.0</td> <td>5.0</td> <td>0%</td> </tr> </tbody> </table> <p>Scale: Strongly disagree (1) Somewhat disagree (2) Neither agree nor disagree (3) Somewhat agree (4) Strongly agree (5)</p>	Statement	Before	After	% Growth	I can reduce complex scientific jargon into simpler topics appropriate for high school students.	3.7	4.9	33%	I can talk to high school students in an engaging way about science.	3.7	4.8	30%	I am confident presenting an interactive scientific talk to high school students.	4.0	4.9	22%	I can influence high school students to consider a career in STEMM.	3.7	4.4	21%	I can gauge my audience's level of interest and adjust my talk appropriately.	3.7	4.4	21%	I can tell my story through images using appropriate colors, tones, and layouts.	4.2	4.8	13%	I know how to deliver a talk with authenticity.	4.3	4.8	10%	It is important that high school students, particularly those in underrepresented groups, see that they can participate in STEMM careers.	4.8	5.0	5%	Scientific communication can help mitigate the impact of misinformation.	4.9	5.0	2%	I am capable of taking feedback to improve my presentations.	4.9	5.0	2%	The public can learn about science from scientists.	4.8	4.8	0%	I am excited to present my scientific talk to high school students.	5.0	5.0	0%
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<p>The retrospective survey of visiting scientists displayed in the figure on the right is followed by individual interviews. This “explanatory sequential mixed methods approach” (Creswell, 2015) helps to define what was valued and utilized in the ambassador workshops.</p> <p>Additionally, retrospective surveys of the classroom teachers and students (not shown in this handout) broaden the scope of understanding of the intervention and support our Culturally Responsive Evaluation (CRE) framework.</p>																																																					

