

Early-Stage Project Evaluation

While the curriculum is still in development, evaluation efforts will be primarily formative, designed to inform improvements and adjustments based on information about audience engagement and use of program content. NCPRE is contracting with external evaluators Drs. Kathryn Leskis and Crystal Newman of the University of Illinois Department of Psychology. They were chosen for their knowledge and experience of assessment, testing, clinical interviews, group dynamics, and interpersonal interactions.

Beta Testing

Multi-method beta testing of existing Module One content will start in the summer of 2021.

GOALS

This phase of evaluation will explore the usability of the program before the Janelia and Illinois pilot tests. It seeks to assess the (1) intervention materials, (2) intervention procedures, and (3) evaluation measures.

- Are the current LTW intervention materials (i.e., scenes, interviews, and logbook activities) comprehensible, realistic, relatable, and engaging?
- How do participants complete the activities and engage with the materials?
- Are the proposed evaluation measures understandable? Do they assess the predicted changes associated with the LTW program (i.e., knowledge, awareness, behavior)?

Data collected from the participants will be compiled, characterized, and summarized. It is unlikely that any statistical analyses will be conducted at this stage, given the small sample size and lack of control group.

PARTICIPANTS

Approximately 20 graduate and undergraduate students from the University of Illinois at Urbana-Champaign who have at least one full year of working experience working in a scientific laboratory. Participants will be paid for their time.

PROCESS

We will collect pre-participation information from participants including demographic and academic background. Participants will then receive an email with a link to online content platform, with instructions for how to (1) take the pre-test, (2) watch the videos and complete the logbook, recording their reactions throughout, and (3) take the post-test.

After completion, and potentially at intermediate points (end of Act One, etc.), and completion of the post-test, participants will be invited to participate in individual interviews and/or focus groups for further insights on participant engagement and reactions.

Data collected from participants will include:

1. Participant open-ended notes on:
 - (a) participant reactions/impressions of the realism and relatability of characters and scenes
 - (b) whether the materials are engaging
 - (c) whether the materials are understandable/clear, not too difficult to understand or complete, and
 - (d) the length of time each element takes to complete.

These notes will be recorded separately after each video, and each section of the logbook.

2. Closed-ended Likert survey responses, administered both pre- and post-intervention, to assess:
 - (a) Values articulation
 - i. the extent to which your own, others' in your lab, and the institution's values are held and shared
 - ii. awareness of biases (own, lab, institution)
 - (b) Decision making in difficult or conflict situations
 - i. test knowledge of six steps of DMF, report frequency of use of each of six steps
 - ii. Test knowledge of TRAGEDIES, rate extent of TRAGEDIES (in lab, in yourself)
 - (c) Communication Skills (e.g., rated frequencies of active listening, use of techniques and scripts for buying time, broaching and having difficult conversations, giving and receiving feedback)
 - (d) Leadership skills
 - i. test for knowledge of leadership styles, power dynamics, and mentoring styles
 - ii. list benefits of diversity and inclusion (open-ended)
 - iii. rate frequencies of strategies for responding to harassment, micro-aggression, and biases
 - (e) Laboratory materials
 - i. awareness of lab manual
 - ii. personal consistency using lab manual and data management plan
 - iii. lab's consistency in using lab manual and data management plan
3. Individual interviews and focus groups data, which will be conducted to elicit feedback on participants' responses to the previous sections.

Pilot Testing

After the beta tests, we will make responsive adjustments in the online platform and content. We presently anticipate using nonequivalent before-after pilot testing with two groups: an experimental group and a control group. While this design is vulnerable to several threats to internal validity (e.g., selection bias), this approach can still estimate treatment effects.

Current planning suggests a design in which participants will be asked to:

- complete pre-participation surveys
- submit archival materials (if applicable/possible)
- complete the online curriculum (scenes and interviews) and the logbook activities
- complete concurrent- and post-intervention evaluation and feedback

The control group only will do the pre/post test (no videos, no logbook).