Innovating an in-person evaluation design during a[n indefinite] period of physical distancing

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More Information and Resources:
http://bit.ly/remote_eval_20

BACKGROUND

CENTER FOR EDUCATION DESIGN, EVALUATION, AND RESEARCH — SCHOOL OF EDUCATION, UNIVERSITY OF MICHIGAN

The case study presented in this poster was conducted by staff at the Center for Education Design, Evaluation, and Research (CEDER).

CEDER advances equity and excellence in education by providing access to high quality design, evaluation, and research services through collaborations with university, school, and community partners.

BOSCH — Invented for life

BEST TEACHER GRANTS — Powered by Bosch Community Fund

The activities described in relate to CEDER's evaluation of the BEST Teacher Grant Program.

The Bosch Eco+STEM Teacher (BEST) Grant Program advances sustainability and STEM education in ways that inspire, excite, and engage.

The CEDER team is responsible for program development, management, evaluation and improvement, in partnership with the Bosch Community Fund, which owns and funds the program.

September 5 2019	October 30 2019	December 9 2019	Early January 2020	June 30 2020
Applicant Portal Opens	Applications Due	Grantees Notified	Funds Disbursed	Grantee Final Report

The BEST Program operates on an annual grant cycle.

The focus of the evaluation activities that we describe in this presentation was the review period. The review period takes place between the application deadline and grantee notification. Specifically, our design focused on the rubric that reviewers used to score 2019 applications.

BE³ST Teacher Grant Program Rubric

MISSION: The Bosch Energy, Environment, Engineering, Science, and Technology (BE³ST) Teacher Grant Program supports teachers in promoting STEM learning in ways that foster excitement among students for these fields. The program awards up to $2000 to P-12 educators to fund innovative, interactive, project-based learning experiences in the areas of energy, environment, engineering, science, technology, and mathematics.

	5 EXCEEDS REQUIREMENTS	4 MEETS REQUIREMENTS	3 APPROACHING REQUIREMENTS	2 DEVELOPING	1 UNACCEPTABLE
Q12 – PROJECT DESCRIPTION & DESIGN	Exceeds requirements in score 4.	Strong and innovative project design with clearly defined learning activities that link to project goals.	Project description lacks clarity in some places and/or learning activities are unclear and/or are weakly linked to project goals.	Project description is unclear, may not have learning activities, or activities are vague and do not align with goals.	Not present.
Q13/14 – STEM CONCEPTS & LEARNING OBJECTIVES	Exceeds requirements in score 4.	Clearly articulates the STEM concept/s and learning objective/s.	STEM concept/s and/or learning objective(s) are vague.	STEM concept/s and/or learning objective(s) are missing or weak.	Not present.
Q15 – DEMONSTRATION & ASSESSMENT OF LEARNING	Exceeds requirements in score 4.	Clearly articulates how learning will be demonstrated.	Demonstration of learning is vague.	Demonstration of learning is missing or weak.	Not present.
Q16 – USE OF INQUIRY/PROJECT-BASED LEARNING	Exceeds requirements in score 4.	Project has a clear inquiry frame and makes use of project-based learning.	Project is missing a clear inquiry frame and/or makes partial or limited use of project-based learning.	Project is missing a clear inquiry frame and does not use project-based learning.	Not present.
Q17/18 – CURRICULUM FRAMEWORK/STANDARDS	Exceeds requirements in score 4.	Project is aligned with explicitly stated standard(s).	Project may state or allude to standard(s) but relevance is not clear.	Project makes weak or little reference to standards(s).	Not present.
BUDGET	Exceeds requirements in score 4.	Provides a complete project budget with a total amount and an itemized list with unit prices. All requested items clearly align with project description and goals.	Mismatch between total amount and itemized list, or itemized list incomplete. Many requested items do not clearly align with project description or goals.	Total budget and/or itemized list missing. Many requested items do not clearly align with project description or goals.	Not present.
OVERALL: ALIGNMENT WITH BE³ST TEACHER GRANT PROGRAM MISSION	Exceeds requirements in score 4.	Project engages students in a high-interest, academically rigorous interactive STEM learning experience.	Project addresses a STEM-topic but provides a weak interactive experience.	Project does not address a STEM-topic and/or does not provide an interactive experience.	Not present.

Score: _____ /35 pts

EVALUATION PROBLEM & QUESTION

We identified the need to improve the BEST Program review rubric.

Informed by evaluation activities such as surveys and focus groups with applicants and reviewers, and by internal conversations among the BEST Program team, we had identified two key issues with the 2019 rubric.

⚠ **Issue 1:** The rubric did not make it clear what an applicant would need to do to score a "5" in each category.

⚠ **Issue 2:** There was some misalignment between the application form and the rubric.

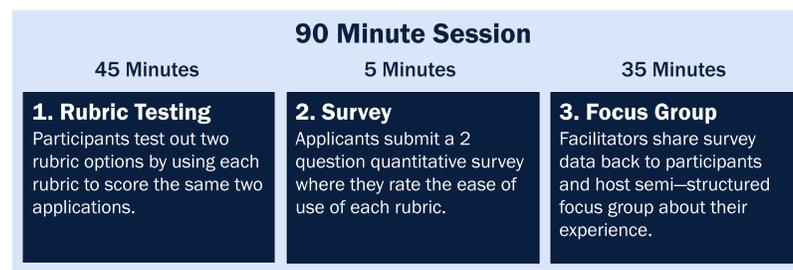Based on these issues, we formulated the following evaluation question:

? How can we improve the rubric used to score BEST Teacher Grant applications so that the process is

1 fair for applicants?

2 straightforward for reviewers?

PRE-COVID EVALUATION DESIGN

In early March 2020, we created two draft rubrics to test out. We refer to these these as rubric A and rubric B.
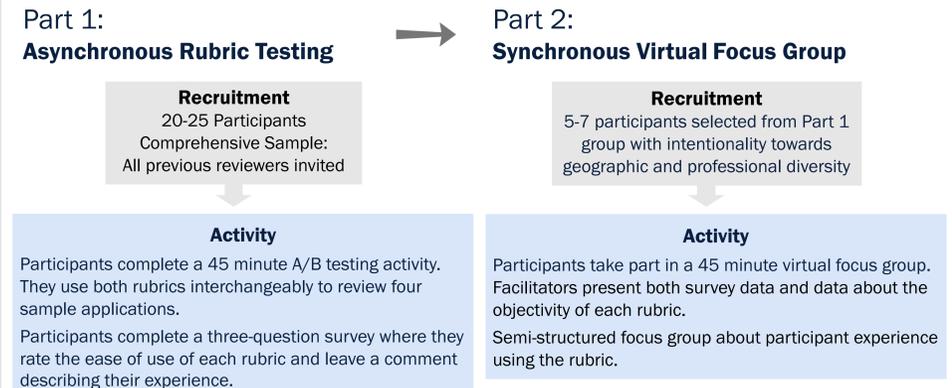
A — BEST Teacher Grant Program Rubric A

B — BEST Teacher Grant Program Rubric B

Our plan was to host an in-person Mixed-Methods focus group.

Recruitment
5-7 Participants
Convenience Sample
Local to Ann Arbor
Mostly Graduate students

90 Minute Session

45 Minutes	5 Minutes	35 Minutes
1. Rubric Testing Participants test out two rubric options by using each rubric to score the same two applications.	**2. Survey** Applicants submit a 2 question quantitative survey where they rate the ease of use of each rubric.	**3. Focus Group** Facilitators share survey data back to participants and host semi—structured focus group about their experience.

REMOTE EVALUATION DESIGN

We were compelled to reimagine our design for the online environment when Michigan (and most of the Western Hemisphere) went into lockdown in mid-March and the CEDER team went remote.

Part 1: Asynchronous Rubric Testing → **Part 2: Synchronous Virtual Focus Group**

Part 1 Recruitment
20-25 Participants
Comprehensive Sample:
All previous reviewers invited

Part 1 Activity
Participants complete a 45 minute A/B testing activity. They use both rubrics interchangeably to review four sample applications.
Participants complete a three-question survey where they rate the ease of use of each rubric and leave a comment describing their experience.

Part 2 Recruitment
5-7 participants selected from Part 1 group with intentionality towards geographic and professional diversity

Part 2 Activity
Participants take part in a 45 minute virtual focus group. Facilitators present both survey data and data about the objectivity of each rubric.
Semi-structured focus group about participant experience using the rubric.

Our new design combined asynchronous A/B Testing, with a synchronous virtual focus group. Recruiting more participants to test the rubrics allowed us to split the them two groups to control for differences between our sample applications.

How we set up Zoom for the virtual focus group:
- We preset our meeting to record automatically.
- We used a waiting room to control who entered the focus group and when.
- We asked participants to mute their microphone when not speaking.
- In our email instructions, we asked participants to join using their computer and keep their video on (if they felt comfortable) to watch for non-verbal cues.
- We asked participants to use the chat window for issues and questions.
- We posted our interview questions and resources in the chat.
- We took it in turns to monitor participants and the chat window while the other person was facilitating.

✓ Benefits of our remote design:
- We engaged a higher number of participants which helped us generate more robust quantitative data and engage a representative sample.
- We had time to design a data handout based on Part 1 data. Screen share allowed us to share our handout easily.
- The chat function was helpful for expressing agreement without interruptions, one-to-one support through private messages, and sharing links to resources.
- The Zoom record function is a reliable option and aided transcription.

✗ Challenges presented by our remote design:
- The adapted design was more complex and took longer to administer.
- It was more difficult to observe body language.
- Initially, there were some privacy concerns about using Zoom. This is especially worth considering if you are collecting more sensitive data.
- Online focus groups raise access and equity concerns, including finding a quiet and presentable space, access to technology, and familiarity with technology.