Small-Scale Evaluation

February 15, 2017
1-2 p.m. EST

Introductions

Miranda Lee
Lori Wingate
Elaine Craft
This material is based upon work supported by the National Science Foundation under grant number 1600992.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the presenters and do not necessarily reflect the views of NSF.
MATERIALS

Handout  Slides  Recording

www.evalu-ate.org/webinars/2016-mar/

1
Small-scale Evaluation Basics
Tales from the Trenches  Question Break

2
Evaluation Scale: Getting it Right
Tales from the Trenches  Question Break

3
Data Collection & Division of Labor
Tales from the Trenches  Question Break
WEBINAR
Small-Scale Evaluation

2/15/2017

Lori Wingate

SETTING THE STAGE

ADVANCED TECHNOLOGICAL EDUCATION (ATE)

www.nsf.gov/ate
Small Grants for Institutions New to the ATE Program

- Community colleges that have not had an ATE award in the past 10 years
- Up to $200,000 over 3 years
What is the difference between a small-scale and a large-scale evaluation?
SMALL-SCALE EVALUATION

- Few components
- Takes less time to make
- Less expensive ($10)

- Made from the same components
- Have the same general form

LARGE-SCALE EVALUATION

- Many components
- More time to make
- More expensive ($150)

- Few components
- Takes less time to make
- Less expensive

- Made from the same components
- Have the same general form
EVALUATION

The determination of something’s quality, value, or importance

PROJECT EVALUATION

The systematic determination of a project’s quality, value, or importance based on evidence
1. Ask important questions about a project’s processes and outcomes.

2. Gather evidence that will help answer those questions.

PROJECT EVALUATION

3. Interpret data and answer the evaluation questions.

4. Use the information for accountability, improvement, and planning.

Kevin Little
Smallsville Community College
Injection Molding Certificate Program
$198,913 | 2017-20

Original evaluation plan from proposal:

"The project will be evaluated using surveys of students, conducted annually by the project director."

This is a fictional project. Any resemblance to actual persons or projects is coincidental.
Read the ATE program solicitation:

EVALUATION: All projects and centers carry out evaluative activities. The funds to support an evaluator independent of the project or center must be requested, and the requested funds must match the scope of the proposed evaluative activities.

INTELLECTUAL MERIT: Is the evaluation plan clearly tied to the project outcomes? Is the evaluation likely to provide useful information to the project and others?

The Project Description must begin with the subsection on Results from Prior NSF Support .... This subsection must contain specific outcomes and results including metrics to demonstrate the impact of the project activities.

How much is it going to cost?
10% RULE OF THUMB

CAUTION

The following budget examples are for illustrative purposes only. The information should not be construed as recommendations or guidelines for evaluator costs or time commitments.
### Injection Molding Certificate Project

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries &amp; Fringe Benefits</td>
<td>$103,500</td>
</tr>
<tr>
<td>Equipment</td>
<td>$12,000</td>
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<tr>
<td>Materials</td>
<td>$20,000</td>
</tr>
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<td>Travel</td>
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<tr>
<td>Other – Evaluation Consultant</td>
<td>$13,910</td>
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**Total direct costs before external evaluation:** $139,100 \times 0.10 = $13,910

**Modified total direct costs:** $153,010

**Indirect costs (30%)** $45,903

**Total project cost:** $198,913

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### Injection Molding Certificate Project

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**What’s included?**

**Modified total direct costs:** $153,010

**Indirect costs (30%)** $45,903

**Total project cost:** $198,913
## Evaluation Budget

<table>
<thead>
<tr>
<th>Category</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Total</th>
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<tbody>
<tr>
<td>Travel</td>
<td>$500</td>
<td>$500</td>
<td>$500</td>
<td>$1,500</td>
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<td>Consultant fees</td>
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*Annual site visits are important!*

## Evaluation Budget

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6 5 4.5 days  

@ $100 per hour, how many days can the external evaluator devote to this project?
How can I stretch my evaluation dollars?
Match evaluation scale to project scale.
Choose lower-cost methods.
Do some of the work yourself.

EVALUATION SCALE: GETTING IT RIGHT

Lori Wingate
PROJECT ABSTRACT

Plastics Injection Molding Certificate Program

To address the growing demand for injection molding technicians among regional manufacturers, Smallsville Community College is developing a certificate in plastic injection molding. The program is being designed with input from an advisory committee comprised of representatives from local manufacturing employers. Five existing courses from the areas of plastic technology and engineering technology are being updated to better align with employer needs.

In addition, a new course called “Essential Workplace Skills” is being created to focus on developing students’ communication, teamwork, and critical thinking skills. To attract students to the program, marketing efforts will include simulation activities at the local “education for employment” fair for area high school students and a promotional video produced by the college’s videography students. Once established, it is expected that the program will award certificates to 20 students per year.

PROJECT LOGIC MODEL

ACTIVITIES

what a project does
PROJECT LOGIC MODEL

OUTCOMES

changes brought about through project activities

in knowledge, skills, attitudes, behaviors, policies, practices, broader conditions

PROJECT LOGIC MODEL

ACTIVITIES | SHORT-TERM OUTCOMES | MID-TERM OUTCOMES | LONG-TERM OUTCOMES
---|---|---|---
Convene industry advisory panel | Prospective students learn about program | Students successfully complete certificate courses and obtain certificates | A capable injection molding workforce meets regional demands
Revise 5 existing courses | Faculty deliver new and improved courses | Certificate-holding students obtain injection molding technician jobs
Create new workplace skills course | Market program via promotional video and education fair

LOGIC MODEL TEMPLATE
1. Ask important questions about a project’s processes and outcomes.

2. Gather evidence that will help answer those questions.

3. Interpret data and answer the evaluation questions.

4. Use the information for accountability, improvement, and planning.

**PROJECT EVALUATION**

**EVALUATION QUESTIONS**

Provide a foundation and establish boundaries for the evaluation process.
To what degree are the new and improved courses aligned with industry needs?

- Convene industry advisory panel
- Revise 5 existing courses
- Create new workplace skills course
- Market program via video and education fair
EVALUATION QUESTIONS

SHORT-TERM OUTCOMES

Prospective students learn about program
Faculty deliver new and improved courses

To what extent are certificate courses being implemented as designed?

EVALUATION QUESTIONS

MID-TERM OUTCOMES

Students obtain certificates
Students obtain injection molding technician jobs

How effective is the program in terms of producing qualified injection molding technicians?
Beyond the project’s funding 3-year time frame

LONG-TERM OUTCOMES
A capable injection molding workforce meets regional demands

EVALUATION QUESTIONS

1. To what degree are the new and improved courses aligned with industry needs?
2. How successful were marketing efforts in reaching the intended audience?
3. To what extent are certificate courses being implemented as designed?
4. How effective is the program in terms of producing qualified injection molding technicians?
Match evaluation scale to project scale.

- How can I stretch my evaluation dollars?
- Choose lower-cost methods.
- Do some of the work yourself.

Data Collection and Division of Labor

Lori Wingate
1. Ask important questions about a project’s processes and outcomes.

2. Gather evidence that will help answer those questions.

3. Interpret data and answer the evaluation questions.

4. Use the information for accountability, improvement, and planning.

Use methods that...

- Will produce data needed to answer evaluation questions
- Are feasible on a small budget
How can I stretch my evaluation dollars?

**Match evaluation scale to project scale.**

Choose lower-cost methods.

Do some of the work yourself.

Which of these methods are relatively MORE costly?

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey
MORE costly:

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

Qualitative data collection and analysis is very time consuming.

MORE costly:

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

Manual data entry and data verification is necessary with paper surveys.
MORE costly:

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey

Open-ended inquiry requires time-consuming, in-depth qualitative analysis.

LESS costly:

- Observations
- Document review
- Unstructured interviews
- Structured interviews
- Focus groups
- Electronic survey
- Paper-and-pencil survey
EVALUATION QUESTIONS

1. To what degree are the new and improved courses aligned with industry needs?

2. How successful were marketing efforts in reaching the intended audience?

3. To what extent are certificate courses being implemented as designed?

4. How effective is the program in terms of producing qualified injection molding technicians?

Evaluation Question 1:
To what degree are the new and improved courses aligned with industry needs?

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>DATA SOURCES/ METHODS</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of match between industry recommendations and new course content</td>
<td>Document review to compare of formal recommendations with course syllabi</td>
<td>External evaluator</td>
</tr>
<tr>
<td>Opinions of industry advisors on degree of alignment</td>
<td>Structured interviews with industry advisors</td>
<td>External evaluator</td>
</tr>
</tbody>
</table>
Evaluation Question 4:
How effective is the program in terms of producing qualified injection molding technicians?

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<th>INDICATORS</th>
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<tbody>
<tr>
<td>Number of students awarded certificates as percentage of target of 20 per year</td>
<td>Review of program records</td>
<td>Provided to external evaluator by project director</td>
</tr>
<tr>
<td>Number and percentage of certificate holders who intend to pursue jobs as injection molding technicians</td>
<td>Web survey of enrolled students</td>
<td>Administered by program faculty in cooperation with external evaluator</td>
</tr>
<tr>
<td>Opinions of industry advisors regarding preparedness of students for injection molding jobs</td>
<td>Structured interviews with industry advisors</td>
<td>External evaluator with outreach assistance from project director</td>
</tr>
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DATA COLLECTION MATRIX & INDICATOR CHECKLIST

How can I stretch my evaluation dollars?
Choose lower-cost methods.
Do some of the work yourself.
How can Kevin and his project team assist with the evaluation?

**Project Team**
- Assist with data collection
- Maintain record of participants and partners
- Document project activities & accomplishments

**External Evaluator**
- Plan the evaluation
- Develop/select data collection instruments
- Analyze data
- Write reports
- Facilitate use of results
- Interpret results
Participant & Partner Data

Also needed for:

- NSF annual reports
- ATE annual survey

INFO ABOUT NSF ANNUAL REPORTS AND ATE SURVEY

students – faculty – staff – partners – advisors

Use a spreadsheet or database to document WHO PARTICIPATED and their

- key demographics
- contact information
- involvement in the project, including dates
WEBINAR
Small-Scale Evaluation

Create a project resume that includes a profile and record of activities, products, people, etc.

WEBINAR AND CHECKLIST ON PROJECT RESUMES

✓ Evaluation budget
✓ Evaluation questions
✓ Data collection plan
The Project Description must begin with the subsection on Results from Prior NSF Support .... This subsection must contain specific outcomes and results including metrics to demonstrate the impact of the project activities.

RESULTS FROM PRIOR NSF SUPPORT CHECKLIST

THANK YOU!

www.evalu-ate.org

www.mentor-connect.org