Introductions

Jason Burkhardt  Lori Wingate  Elaine Craft  Dennis Faber

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Behind the Scenes

Mike Lesiecki
Janet Pinhorn
Charlotte Forrest
Emma Perk

Webinar Materials

High-Impact, Low-Cost Evaluation for Small Projects
February 18, 2015

Slides
Handout
Recording

Available from www.evalu-ate.org
Webinar Overview

1. ATE Small Grants
   - Elaine Craft
   - Mentor-Connect
   - Dennis Faber

2. Maximizing Evaluation Impact
   - Lori Wingate

3. Minimizing Evaluation Costs
   - Lori Wingate

ATE Small Grants

Elaine Craft
focuses on strengthening technician education at the postsecondary and secondary levels for the high-technology fields that drive our nation's economy
Broadening the Base of Community Colleges Involved in ATE

- Only community college campuses that have not had an ATE award in the past 10 years may apply
- $200,000 over 3 years
- 12-20 awards made per year

Proposal Success Rates (Approximate)

- 65% of all ATE small grant proposals are funded
- 20% of all ATE proposals to ATE are funded

Source: Celeste Carter, Mentor-Connect Opportunities for NSF ATE Program Funding and Mentor-Connect Grant Writing Support
- Mentor-Connect webinar on 9/14/14
- www.youtube.com/watch?v=A8I-KoOvao
Examples of ATE Small Grants

- Faculty Development for Technician Education in Welding, Materials Joining, and Non-Destructive Testing | $197,944

- Manufacturing Associate Degree Education in Northwestern Connecticut | $199,960

- Saint Paul College Science Instrumentation Collaborative | $199,712

Some Full-Scale Projects Evolve into Centers
Tips for ATE Small Grants*

✓ Use resources developed by existing ATE projects and centers
✓ Consult with ATE PIs
✓ Address rural technician education issues, as appropriate

*from ATE program solicitation

Mentor-Connect

Dennis Faber
Mentor-Connect provides comprehensive and interactive support for leadership development and knowledge transfer by developing and supporting potential, current and former grantees.

**Getting Help from Mentor-Connect**

<table>
<thead>
<tr>
<th>For Mentor-Connect Mentees ONLY</th>
<th>For Everyone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worksheet to guide development of project focus and rationale</td>
<td>✓</td>
</tr>
<tr>
<td>2 workshops on grant writing and leadership skills</td>
<td>✓</td>
</tr>
<tr>
<td>ATE mentor for personalized assistance with grant development and submission</td>
<td>✓</td>
</tr>
<tr>
<td>3 technical assistance webinars</td>
<td>✓</td>
</tr>
<tr>
<td>Online resources (e.g., samples, checklists, guidelines, tutorials, webinar recordings)</td>
<td>✓</td>
</tr>
<tr>
<td>Help desk access (phone, email)</td>
<td>✓</td>
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</tbody>
</table>
Applying to Mentor-Connect

Applications available this summer
Learn more at the “Get a Mentor section” of mentor-connect.org

www.mentor-connect.org
Maximizing Evaluation Impact

Lori Wingate

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

2. Gather evidence that will help answer those questions.

3. Interpret findings and answer the evaluation questions.

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

EVALUATION
Cost-Saving Strategies

- Match the scope of the evaluation to the scope of the project.
- Develop a tracking system to monitor project reach and participation.
- Maintain a record of key project activities and accomplishments.
- Utilize institutional research data to the fullest extent possible.
- Leverage internal and external evaluation to answer the most important questions.

MOST IMPORTANT!
1. Ask important questions about a project’s processes and outcomes.

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Before Developing an Evaluation Plan...

Ensure there is clarity about
- the need the project is addressing
- the project’s main activities
- the project’s impactees
- the project’s intended outcomes
Example

eLABorate Success Project

$139,658 | 2010-12
Northeast Wisconsin Technical College

...faculty-initiated project in response to challenges associated with the open lab format used at the college. Because students use the lab on an open-entry/open-exit basis, the staff member on hand at any one time might not have the expertise needed to help the student. To address this challenge, the staff is implementing a strategy of cross training, support and enhancement that provides all faculty members with enough knowledge to deal with basic content issues and questions in the shared concentrations (Electrical Engineering Technology, Electronics/Biomedical Technology, Electro-Mechanical Technology, and Automation Engineering Technology)....

Goals:
1. Enhance the quality of students’ learning experience in the Manufacturing Technology Center by improving the instructor’s ability to assist all students in select courses.
2. Improve the quality of the labs.
3. Increase the percentage of students successfully completing courses on his/her first attempt.

NEED
1. What is the problem or need being addressed by this project?

ACTIVITIES
2. What are the main project activities?

PARTICIPANTS
3. Who are the primary participants in the project’s activities?

OUTCOMES
4. What will be different for participants because of the project?
5. Who is ultimately supposed to benefit from this project?
6. What is expected to be different for students because of the project?
EvaluATE Webinar: High-Impact, Low-Cost Evaluation for Small Projects

**Confirming Project Logic**

**Need**
- Faculty do not have adequate knowledge to assist students in open labs.
- A significant number of students are performing poorly in courses requiring open lab work.

**Activities**
- Train faculty staffing the lab on all equipment.

**Outcomes**
- Faculty are able to help students in the lab.
- Students learn more.
- Students are successful in their courses.

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**EVALUATION**

1. Ask important questions about a project’s processes and outcomes.
2. Gather evidence that will help answer those questions.
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Evaluation Questions

1. To what extent did the training meet the needs of faculty?

- Activities: Train faculty staffing the lab on all equipment.
- Outcomes:
  - Faculty are able to help students in the lab.
  - Students learn more.
  - Students are successful in their courses.

Evaluation Questions

2. To what extent did the training improve the faculty’s competence with lab equipment?

- Activities: Train faculty staffing the lab on all equipment.
- Outcomes:
  - Faculty are able to help students in the lab.
  - Students learn more.
  - Students are successful in their courses.
3. To what extent did the training improve student performance in lab-related courses?

1. Ask important questions about a project’s processes and outcomes.
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### EVALUATION QUESTIONS

<table>
<thead>
<tr>
<th>1. To what extent did the training meet the needs of participating faculty?</th>
<th>INDICATORS</th>
<th>DATA SOURCES/ METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty self-report of satisfaction, relevance, engagement</td>
<td>Interviews or surveys of participating faculty</td>
<td></td>
</tr>
<tr>
<td>Degree to which training covered all lab equipment</td>
<td>Review of training content and/or PI self-report</td>
<td></td>
</tr>
<tr>
<td>2. To what extent did the training improve the faculty’s competence with lab equipment?</td>
<td>Faculty self-report of learning</td>
<td>Interviews or surveys of participating faculty</td>
</tr>
<tr>
<td>Percentage of faculty participating</td>
<td>Project records</td>
<td></td>
</tr>
<tr>
<td>Participants’ ability to operate lab equipment</td>
<td>Observation of performances tasks during training</td>
<td></td>
</tr>
<tr>
<td>Student satisfaction with the help they receive in labs</td>
<td>Surveys or interviews of students</td>
<td></td>
</tr>
<tr>
<td>3. To what extent did the training improve student performance in lab-related courses?</td>
<td>Student grades on assignments requiring lab work</td>
<td>Provided by faculty teaching courses</td>
</tr>
<tr>
<td>Student grades for lab-related courses</td>
<td>Provided by faculty teaching courses</td>
<td></td>
</tr>
<tr>
<td>Percentage of students passing courses on first attempt</td>
<td>Institutional data</td>
<td></td>
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</tbody>
</table>

### EVALUATION

1. Ask important questions about a project’s processes and outcomes.
2. Gather evidence that will help answer those questions.
3. Interpret findings and answer the evaluation questions.
4. Use the information for accountability, improvement, and planning.
### Interpret Findings

**EVALUATION QUESTIONS**

3. To what extent did the training improve student performance in lab-related courses?

**INDICATORS**

- Student grades on assignments requiring lab work
- Student grades for lab-related courses
- Percentage of students passing classes on first attempt

**TARGETS**

- 75% of students will achieve a grade of ‘C’ or better on all assignments
- 75% or more of students will achieve course grade of ‘C’ or better on first attempt
- Increase from 50% to at least 75%

Compare results with targets in order to answer questions

*(may find that targets need to be adjusted)*

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### EVALUATION

1. Ask important questions about a project’s processes and outcomes.
2. Gather evidence that will help answer those questions.
3. Interpret findings and answer the evaluation questions.
4. Use the information for accountability, improvement, and planning.
Use the Information

Accountability
- Include results in your annual report to NSF

Improvement
- Monitor results as data are gathered to determine if changes are needed in implementation

Planning
- Determine what worked and didn’t as you plan your next project
- Summarize outcomes and lessons learned in your next proposal’s “Results of Prior NSF Support” section

Discussing what you learned from your evaluation demonstrates commitment to excellence and stewardship of resources.
1. Ask important questions about a project’s processes and outcomes.

2. Gather evidence that will help answer those questions.

3. Interpret findings and answer the evaluation questions.

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

ATE Program Goals

- produce more qualified science and engineering technicians to meet workforce demands
- improve the technical skills and the STEM preparation of these technicians and the educators who prepare them

Your project’s job is to make a contribution to these goals.

Your evaluation’s job is to determine the merit, worth, and significance of your contribution.
Cost-saving Strategies

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Minimizing Evaluation Costs

Lori Wingate
What do you think?

What are your suggestions for keeping evaluation costs down?

Lori

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Track Reach and Participation

Use spreadsheet or database software to keep a log of WHO PARTICIPATED and their:
- key demographics
- contact information
- involvement in the project, including dates

students – faculty – staff – partners – advisors

EvaluATE Example:
Track Reach and Participation

ATE Roles of EvaluATE’s Participants

College Administrators 37%
Evaluators 20%
PIs 18%
Project Staff 9%
Not in ATE 7%
Co-PIs 6%
Other 4%
EvaluATE Example: Track Reach and Participation

Frequency of Participation in EvaluATE Events

- 896 people attended 1-2 events
- 154 people attended 3-4 events
- 49 people attended 5-6 events
- 29 people attended 7 or more events

Track Reach & Participation

Data on project participants are also needed for
- NSF annual reports
- ATE annual survey
Cost-Saving Strategies

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Project Resume (or Fact Sheet)

Provides succinct documentation of your past performance and capacity for future work
Project Resume (or Fact Sheet)

- Mission
- Goals
- Funding
- Staffing levels
- Activities/Deliverables
- Personnel (including paid staff, consultants, and collaborators)

Cost-Saving Strategies

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Institutional Data

Common Data Elements
- student ID
- demographics
- program of study
- retention
- graduation

Uses
- track over time
- create comparison group

See Carolyn Brennan and Russell Cannon’s newsletter article and blog on using institutional data for grant writing and evaluation — bit.ly/instdata

Cost-Saving Strategies

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☐ Develop a tracking system to monitor project reach and participation.

☐ Maintain a record of key project activities and accomplishments

☐ Utilize institutional research data to the fullest extent possible.

☒ Leverage internal and external evaluation to answer the most important questions.
Budgeting for ATE Evaluation

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.

What Makes an Evaluator INDEPENDENT?

- Does not have other roles on the project
- Is not supervised by someone who works on the project
- Has no financial or intellectual stake in the project’s success
Evaluators in the ATE Program

- Any type of evaluator: 90%
- Evaluator external to both project and institution: 84%
- Both internal and external evaluators: 10%
- Evaluator external to project, internal to institution: 5%
- Internal evaluator only: 3%

Source: ATE Survey 2014 Fact Sheet
www.evalu-ate.org/annual_survey

Budgeting for ATE Evaluation

"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."
Budgeting for Evaluation

10% general rule of thumb

8% ATE reality
**External Evaluator Roles**

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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<tbody>
<tr>
<td>External Evaluator as Coach</td>
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<tr>
<td>External Evaluator as Heavy Lifter</td>
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<tr>
<td>External Evaluator as Architect</td>
<td></td>
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<tr>
<td>Divide-and-Conquer</td>
<td></td>
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</table>

To learn more, see my newsletter article at www.evalu-ate.org/newsletter/2014-fall-rqra

**Leverage Internal and External Evaluation**
Cost-Saving Strategies

These are evaluation tasks that project personnel should do!

☐ Develop a tracking system to monitor project reach and participation.
☐ Maintain a record of key project activities and accomplishments.
☐ Utilize institutional research data to the fullest extent possible.

Evaluation is an Investment

Evaluation is too small: Minimal investment yields minimal return.

Evaluation is too big: Drains resources away from project implementation.

Evaluation is just right: Adds value to the project.
Thank You!

EvaluATE
Evaluation Resource Center for advanced technological education