Your ATE Proposal: got evaluation?

August 2014

your ATE proposal:

got evaluation?

8.20.14

Introductions

Krystin Martens  Lori Wingate  Gerhard Salinger  Åsa Bradley  Terryll Bailey

This material is based upon work supported by the National Science Foundation under grant number 1204683. 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.
Your ATE Proposal: got evaluation?

Advanced Technological Education

www.nsf.gov/ate

Webinar Materials

- Checklist
- Slides
- Recording

Available from evalu-ate.org/events/august_2014
Objectives

By the end of the webinar, you will

1. Know what evaluative elements should be included in a proposal and where

2. Understand how evaluation can be leveraged to strengthen a proposal
ATE Proposal Components

- Cover Sheet
- Project Summary
- Project Description
- References Cited
- Biographical Sketches
- Budget and Budget Justification
- Current and Pending Support
- Facilities, Equipment and Other Resources
- Supplementary Documents

Evaluation-related information is needed in these sections

Cover Sheet

Human Subjects

- Indicate “pending” if application not yet submitted
- You WILL need approval before grant is awarded
ATE Proposal Components

- **Cover Sheet**
- **Project Summary**
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**Project Summary**

1-page:
- **Overview**
- **Intellectual Merit**
- **Broader Impacts**
Your ATE Proposal: got evaluation?

August 2014

Merit Review Criteria

**Intellectual Merit**

potential to advance knowledge

**Broader Impacts**

potential to benefit society

☑️ Project Summary

**ATE-Specific INTELLECTUAL MERIT Criterion about Evaluation:**

Is the evaluation plan clearly tied to the project outcomes?
Your ATE Proposal: got evaluation?

**Project Summary**

ATE-Specific INTELLECTUAL MERIT Criterion about Evaluation:

Does the project provide for effective assessment of student learning?

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**Project Summary**

ATE-Specific INTELLECTUAL MERIT Criterion about Evaluation:

Is the evaluation likely to provide useful information to the project and others?
Project Summary

ATE-Specific BROADER IMPACT Criterion about Evaluation:

Will the project evaluation inform others through the communication of results?

ATE Proposal Components

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15-page narrative
Project Description

Results of Prior Support

Rationale
Goals, Objectives, Deliverables, Activities
Timetable
Management Plan
Roles and Responsibilities of the PI, co-PI(s), and Other Senior Personnel
Plan for Sustainability

Evaluation Plan
Dissemination Plan

"specific outcomes and results including metrics to demonstrate the impact of the project"
Results of Prior Support

<table>
<thead>
<tr>
<th>The prior project achieved all of its goals.</th>
<th>☐</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>The PI and co-PIs published four peer-reviewed articles based on data generated by the project.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The project developed three lab manuals, provided 40 faculty with professional development, and served 125 students.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The project supported internships for 75 students, more than half of whom secured full-time positions at their internship sites.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Project Description

**Evaluation Plan** (1-3 pages of your 15-page project description)

1. Identify evaluator and briefly describe his/her experience/expertise
2. Describe the evaluation plan
3. Show integration with other elements of the proposal as appropriate, e.g.:
   - biosketch
   - logic model
   - data management plan
ATE Program Solicitation

“The funds to support an evaluator independent of the project or center must be requested...”

Finding an Evaluator

Other ATE PIs
American Evaluation Association’s Evaluator Directory
Universities in your region
Quiz – Use your markers

HSIRB approval may be submitted to NSF at any time, as long it is before any data are collected from human subjects.

TRUE  FALSE

Quiz – Use your markers

The most important thing to do in a Results of Prior Support section is indicate how many people your project served.

AGREE  DISAGREE
Quiz – Use your markers

NSF maintains a directory of approved evaluators on its website.

TRUE  FALSE

Let’s hear from our panelists ...
Your ATE Proposal: got evaluation?

got questions?

type them in the chat box now

part 2
Your ATE Proposal: got evaluation?

Project Description

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Project Description

Evaluation Plan

2. Describe the evaluation plan
   a. Evaluation focus
   b. Data collection plan
   c. Analysis and interpretation
   d. Reporting schedule and projected uses
a. Evaluation Focus

What aspects of the project will be evaluated?

a. Evaluation Focus

Align the evaluation’s focus with the project’s activities and intended outcomes.
Logic Model

Helpful for project and evaluation planning

Logic Model Example

Green Energy Technology Institute

<table>
<thead>
<tr>
<th>Activities</th>
<th>Outputs</th>
<th>Short-Term Outcomes</th>
<th>Mid-Term Outcomes</th>
<th>Long-Term Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty workshops</td>
<td>Trained faculty</td>
<td>Increased student knowledge &amp; skills in green tech</td>
<td>Graduates enter green tech careers</td>
<td>Increased regional economic vitality</td>
</tr>
<tr>
<td>Follow-up support</td>
<td>Modules</td>
<td>Increased student interest in green tech careers</td>
<td>Regional demands for green technicians are met</td>
<td></td>
</tr>
<tr>
<td>Guest lectures</td>
<td>Model curriculum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field trips</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus-wide activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissemination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graduates enter green tech careers
Regional demands for green technicians are met
Enhanced national capacity for sustainable development

Long-Term Outcomes
Logic Model Example

**Activities**

- Faculty workshops
- Follow-up support
- Guest lectures
- Field trips
- Campus-wide activities
- Dissemination

Activities supported by the project

**Outputs**

- Trained faculty
- Modules
- Model curriculum

Tangible results of the activities
### Logic Model Example

#### Short-Term Outcomes
- Increased student interest in green tech careers
- Increased student knowledge & skills in green tech
- Curriculum disseminated

What the project’s beneficiaries will know or be able to do because of the project.

### Logic Model Example

#### Mid-Term Outcomes
- Graduates enter green tech careers
- Regional demands for green technicians are met
- Community colleges adopt curriculum

What people will do differently because of the project.
Logic Model Example

Long-term project goals that align with the ATE program’s goals

Long-Term Outcomes
- Increased regional economic vitality
- Enhanced national capacity for sustainable development

Logic Model + Generic Evaluation Questions

Whom did you reach? (who, how many)
What were participants’ reactions to the activities?
What is the quality/utility of the activities and products?
Logic Model + Generic Evaluation Questions

**Short-Term Outcomes**

How did the activities affect participants’ knowledge, skills, abilities, or attitudes?

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Logic Model + Generic Evaluation Questions

**Mid-Term Outcomes**

To what extent and how did participants change their behavior because of what they learned?
Logic Model + Generic Evaluation Questions

What is the cumulative effect of the project’s outcomes?
What aspects of the project are sustainable?
What was transformative about the project?

Example: Project-specific Evaluation Questions

Green Energy Technology Institute

To what extent and how did faculty implementation of course modules affect student interest and learning in green tech?
Example: Project-specific Evaluation Questions

Green Energy Technology Institute

Activities → Outputs → Short-Term Outcomes → Mid-Term Outcomes

- Graduates enter green tech careers
- Regional demands for green technicians are met

a. Evaluation Focus

Activities → Outputs → Short-Term Outcomes → Mid-Term Outcomes → Long-Term Outcomes

The evaluation’s focus should match the project’s age and scope.
Project Description

Evaluation Plan

2. Describe the evaluation plan
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b. Data Collection Plan

What information do you need?
How will you collect it?
From whom?
When?
Data Collection Plan: Example 1

...The evaluation will utilize an accepted mixed-methods design (Cook & Campbell, 1979). Quantitative and qualitative measures of performance will be used in both a formative and summative manner to gauge the merit and worth of the grant initiative. This mixed-methods approach has proven useful in utilizing both quantitative and qualitative performance indicators in a single research design (Frechtling & Sharp, 1997). It is also consistent with the best practices and recommendations for rigorous scientifically-based research....
Data Collection Plan: Example 2

Project staff will administer an end-of-workshop survey to obtain participants’ feedback, including both ratings and open-ended comments. The external evaluator will conduct interviews with participants six months following the workshop to determine the extent to which they applied the workshop content. She also will interview a random sample of students at the end of each semester to learn how their knowledge and perceptions of green energy technology were impacted.

WHAT?

Project staff will administer an end-of-workshop survey to obtain participants’ feedback, including both ratings and open-ended comments. The external evaluator will conduct interviews with participants six months following the workshop to determine the extent to which they applied the workshop content. She also will interview a random sample of students at the end of each semester to learn how their knowledge and perceptions of green energy technology were impacted.

WHAT?
Data Collection Plan: Example 2

HOW?

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WHO?

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Data Collection Plan Example

<table>
<thead>
<tr>
<th>Goal</th>
<th>Evaluation Question</th>
<th>Indicator</th>
<th>How</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ interest in green tech careers increases</td>
<td>To what extent did students’ interest in green tech careers increase because of the project?</td>
<td>Change in course enrollment numbers</td>
<td>Review of institutional &amp; departmental records</td>
<td>Project personnel</td>
<td>End of each semester</td>
</tr>
<tr>
<td>Students’ intent to pursue green tech job</td>
<td></td>
<td>In-class survey in retrospective pre-post format</td>
<td>Students in technician ed courses</td>
<td></td>
<td>End of each semester</td>
</tr>
<tr>
<td>Opinions of faculty and career center staff</td>
<td></td>
<td>Interviews</td>
<td>Sample of faculty/staff</td>
<td></td>
<td>Annually</td>
</tr>
<tr>
<td>Number/quality of employment interviews</td>
<td></td>
<td>Interviews</td>
<td>On-campus recruiters</td>
<td></td>
<td>Each visit</td>
</tr>
</tbody>
</table>
Tips for Practical Data Collection

- Build a body of evidence
  - Multiple data sources
  - Qualitative and quantitative data
- Embed data collection into regular project activities
- Use existing data whenever possible
- Use existing instruments when/if they match your needs

☑ Project Description

Evaluation Plan

2. Describe the evaluation plan
   a. Evaluation focus
   b. Data collection plan
   c. Analysis and interpretation
   d. Reporting schedule and projected uses
How will you make sense of the data?
What sorts of comparisons will be made?
What counts as “success”? 

Analysis and Interpretation

Analysis
Organizing, transforming, and describing data
Analysis and Interpretation

Interpretation
Making sense of analyzed data so that conclusions can be made about a project’s quality, progress, and/or impact

Project Description

Evaluation Plan

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Reporting & Projected Uses

ATE-Specific INTELLECTUAL MERIT and BROADER IMPACTS Criteria:

- Is the evaluation likely to provide useful information to the project and others?
- Will the project evaluation inform others through the communication of results?

Reporting & Projected Uses

When and what types of reports will be issued?

How will results be shared?
Reporting & Projected Uses

Information from the evaluation will be needed for

– annual reports to NSF
– annual survey of ATE grantees
– reports to advisory groups

To learn more about aligning evaluation plans to types of projects, see the Common Guidelines for Education Research and Development

Common Guidelines for Education Research and Development

A Report from the Institute of Education Sciences, U.S. Department of Education and the National Science Foundation
August 2013
☑ Project Description

Results of Prior Support
Rationale
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Roles and Responsibilities of the PI, co-PI(s), and Other Senior Personnel

Plan for Sustainability
Evaluation Plan
Dissemination Plan

Quiz Time – Use your markers

It’s best if an evaluation includes both qualitative and quantitative data.

AGREE  DISAGREE
Quiz Time – Use your markers

Evaluation reports are submitted to NSF only at the end of a grant.

TRUE       FALSE

Quiz Time – Use your markers

Mixed methods evaluation studies are recommended only for large-scale projects.

TRUE       FALSE
Let’s hear from our panelists ... 

Terryll Bailey

Åsa Bradley

Gerhard Salinger

Krystin Martens

Lori Wingate

Gerhard Salinger

Åsa Bradley

Terryll Bailey

got questions?

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References Cited

Include references to pertinent evaluation literature in your evaluation plan section.

References


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- Supplementary Documents

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Biographical Sketches

Get one for your evaluator
Follow 2-page NSF format
Include in Supplementary Documents Section

Lori A. Wingate

[a] Professional Preparation

Truman State University  Sociology  B.A. 1990
Lehigh University  Sociology  M.A. 1993
Western Michigan University  Evaluation  Ph.D. 2009

[b] Appointments

2003-present  Assistant Director, The Evaluation Center, Western Michigan University
2005  Principal Research Associate, The Evaluation Center, Western Michigan University
2009-20  Senior Research Associate, The Evaluation Center, Western Michigan University
1997-04  Assistant to the Director, The Evaluation Center, Western Michigan University
1993-97  Coordinator, Judicial Development Project, Lehigh University

[c] Publications


ATE Proposal Components

☑ Cover Sheet
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Budgeting for Evaluation

rule of thumb

10%

Budgeting for Evaluation

reality

8%
**Your ATE Proposal: got evaluation?**

**August 2014**

- **Budget & Budget Justification**

  **Evaluation Budget Components**

  - Time
  - Travel
  - Materials and other expenses

---

**Time**

How many days does the evaluator need to spend in order to generate the needed evaluation deliverables and services?
Travel

Will the evaluator need to travel to
- attend the ATE PI conference, advisory committee meetings, or special project events?
- collect data from participants?
- meet with project staff to plan the evaluation or discuss results?

☑️ Budget & Budget Justification

For **CONSULTANTS**, Under “Other Direct Costs” identify
- evaluator’s daily rate
- time committed to the project
- travel costs
- materials costs
✔ Budget & Budget Justification

For **SUBAWARDS**, have the evaluator prepare a detailed budget using the NSF budget template.

![Budget & Budget Justification](image)

ATE Proposal Components

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- ✔ Budget and Budget Justification
- ☐ Current and Pending Support
- ☐ Facilities, Equipment and Other Resources
- ✔ Supplementary Documents
Supplementary Documents

- A commitment letter from your evaluator
- Your evaluator’s biosketch
- Data Management Plan (REQUIRED)

Supplementary Documents

Data Management Plans must describe:

1. Types of data
2. Data format and content standards
3. Access and sharing policies
4. Privacy, confidentiality provisions
5. Reuse and redistribution policies
6. Archiving and data preservation plans
Quiz Time – Use your markers

ATE projects are required to dedicate at least 8 percent of their budgets to evaluation.

TRUE  FALSE

Quiz Time – Use your markers

The evaluation budget may be reported either as a lump sum or broken down by cost category.

TRUE  FALSE
Quiz Time – Use your markers

A letter from the evaluator is necessary to show his/her commitment to work on the project if funded.

TRUE  FALSE

Let’s hear from our panelists ...

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Krystin Martens  Lori Wingate  Gerhard Salinger  Åsa Bradley  Terryll Bailey

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