Give Your Proposal a Competitive Edge with a Great Evaluation Plan

The webinar will begin at 1 pm Eastern

www.atecentral.net
WEBINAR
Give Your Proposal a Competitive Edge with a Great Evaluation Plan

8/22/2018

www.evalu-ate.org

Materials

Slides Evaluation Plan Checklist and Other Resources Recording

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Introductions

Mike Lesiecki
Lori Wingate

Behind the Scenes

Emma Perk
Lyssa Wilson Becho
Sharon Gusky
Cynthia Williams
Janet Pinhorn
Shannon Payne

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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.

Webinar Overview

1. Essential Elements of an ATE Proposal Evaluation Plan

2. Integrating Evaluation Throughout a Proposal

Lori Wingate
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RESOURCES
Evaluation Plan Checklist for ATE Proposals

New & Improved!

ADVANCED TECHNOLOGICAL EDUCATION
www.nsf.gov/ate

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1 Essential Elements of an ATE Proposal Evaluation Plan
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Project Description (15 pages)

Evaluation Plan (1-2 pages)
Evaluation Plan (1-2 pages)

1. Evaluator
2. Evaluation Questions
3. Data
4. Communication and Use
5. Timeline
Evaluation Plan → Evaluator

- Identify the project’s evaluator
- Describe the evaluator’s qualifications
- Refer to the evaluator’s biosketch and letter of collaboration

The funds to support an evaluator independent of the project or center must be requested...
Evaluators are professionals

A qualified ATE evaluator will have...

- Experience evaluating STEM education projects
- Strong research skills
- Strong communication skills and a service orientation
- Understanding of NSF and 2-year-college contexts

What counts as independent?

Big, Wide World

- Department
  - Project
  - OK if they work in a separate unit
  - Not OK if they do have another role on the project

- College
  - E

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How to Find an Evaluator

American Evaluation Association’s evaluator directory
ATE evaluator map
Local universities
Recommendations from colleagues

POLL: Which proposal has the best description of the evaluator?

Proposal A
Delores Stormborn will lead the project’s external evaluation. She has a Ph.D. in social psychology and is CEO at The Stormborn Evaluation Group. She has conducted 20 STEM education evaluations, including several in the ATE program. Dr. Stormborn’s biosketch and commitment letter are included in the supplementary documents section of this proposal.

Proposal B
Lannister University’s Center for Evaluation will conduct the project’s evaluation. This Center has been a leading evaluation service provider since 1975 and has several prominent evaluators on its staff, as well as a cadre of capable graduate students. When the project is funded, we will work with the evaluators there to further develop and implement the project’s evaluation plan.

Proposal C
Julia Snow will serve as this project’s external evaluator. She leads the college’s faculty development center, providing guidance to instruction and assessment. She serves as chair of the college’s Student Success Committee, and has coordinated data collection for several federal grants.
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RESOURCE
Finding and Selecting an Evaluator for ATE Proposals

Evaluator Biographical Sketch Template for NSF Proposals

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Evaluation Questions

- List the key questions that the evaluation will address
- Include questions about both project implementation and outcomes
- Ensure that questions align with the project’s goals and activities
Logic Models

PROJECT LOGIC MODEL

ACTIVITIES ➔ SHORT-TERM OUTCOMES ➔ MID-TERM OUTCOMES ➔ LONG-TERM OUTCOMES

What the project DOES, Creates, DELIVERS
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PROJECT LOGIC MODEL

ACTIVITIES

SHORT-TERM OUTCOMES

MID-TERM OUTCOMES

LONG-TERM OUTCOMES

CHANGES a project brings through its activities

DIFFERENCE it makes for individuals, organizations, communities, society

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15
EVALUATION QUESTIONS

1. To what extent are the camp and courses achieving project targets in terms of student numbers, diversity, and satisfaction?
2. What are the strengths and weaknesses of the camp and courses?

ACTIVITIES

An expert advisory panel will provide formative feedback to ensure courses meet academic standards and industry needs.
3. To what extent and how are project activities impacting enrollment and persistence in the aviation program?

4. To what extent and how are project activities impacting the number, percentage, and diversity of students graduating from the aviation program?
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LONG-TERM OUTCOMES

Graduates gain employment as aviation technicians
Graduates transfer to aviation engineering programs at four-year colleges

Need to start collecting data on these outcomes, although outcomes won’t be realized until after grant expires

PROJECT LOGIC MODEL

ACTIVITIES

Years 1-3
Develop and offer Aviation Summer Camp for Grades 6-12
Develop and offer Intro to Aviation course
Develop and offer Applied Mathematics for Aviation course

SHORT-TERM OUTCOMES

Years 2-3
More current and incoming students enroll in college’s aviation tech program
More students persist in program

MID-TERM OUTCOMES

Years 3 & beyond
More students graduate from aviation tech program

LONG-TERM OUTCOMES

Post-project
Graduates gain employment as aviation technicians
Graduates transfer to aviation engineering programs at four-year colleges

EQs 1-2
Implementation

EQ 3
Outcome

EQ 4
Outcome

Important to include any additional questions of interest to stakeholders!
Why not just ask if goals were achieved?

POLL

POSSIBLE PROJECT GOAL:
Offer an aviation summer camp for grades 6-12, serving at least 50 students per year.
POSSIBLE PROJECT GOAL:
Expand marketing of the college’s aviation technology program.

POSSIBLE PROJECT GOAL:
Increase the pool of graduates who are prepared for careers in aviation.
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RESOURCE
Logic Models: Getting Them Right and Using Them Well
(webinar recording and handouts)

Data
Evaluation Plan → Data

- What information will be used to answer the evaluation questions
- How the information will be obtained and from what sources
- Procedures for summarizing quantitative and qualitative data
- Procedures for interpreting findings to answer evaluation questions

Indicators

Data Collection Methods

Analysis

Interpretation

It’s OK to sacrifice some detail

Must convey there is a CONCRETE PLAN for collecting and using evaluation data
CHAT: What’s your opinion of this description of the data that will be used in an evaluation?

The evaluation will utilize a mixed-methods approach in which 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. Methods will include surveys, interviews, and review of program records.

Data Matrix

| Evaluation Question 3: To what extent and how are project activities impacting enrollment and persistence in the aviation program? |
|------------------|------------------------|-----------------|------------------|
| Indicators | Data Sources and Methods | Analysis | Interpretation |
| Number of students in program who attended summer camp | Camp and admission records | Counts | Compare with project target of 5 per year |
| Number of students enrolled in program | Program records | Counts | Compare with project target of 5 per year |
| Students’ opinions about AV 100 course | Survey | Descriptive statistics, inductive coding of qualitative data | Compare results with rubric to judge degree of influence |
| Graduating students’ perceptions of what influenced decisions about their program of study | Focus group with students | Thematic coding to determine factors that increase or suppress interest in aviation program | Identify which, if any, factors can be influenced by the program |
RESOURCES

Evaluation Data Matrix

Data Sources

Evaluation questions are identifying questions about a project's impact. The number of evaluation questions expands or shrinks depending on the evaluation's scope.

Data Collection Methods are the means by which information will be gathered. Typical methods include surveys, focus groups, interviews, observations, and multidimensional data sources.

Distribution Ensures consistency among stakeholders. For example, an external evaluator may be responsible for communicating a report and answering questions about the project's impact. This report focuses on project outcomes and showcases the project's impact.

Analysis Plan The communication plan will be shared with stakeholders. The plan includes:

Communication and Use

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Evaluation Plan 4 Communication and Use

- Identify what evaluation reports will be prepared
- Identify the frequency with which the evaluator will communicate with project team
- Describe how evaluation results will be shared with external audiences

ATE-Specific Review Criteria Related to Evaluation

Is the evaluation likely to provide useful information to the project and others?
Will the project evaluation inform others through the communication of results?
### Planning for Evaluation Communication and Use

Formal reporting should occur at least annually

Project team should engage with evaluator regularly

Show commitment to using results for improvement

### POLL: Which proposal has the best description of evaluation communication and use?

<table>
<thead>
<tr>
<th>Proposal A</th>
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<tbody>
<tr>
<td>The evaluator will work with the project PI to prepare required annual reports submitted to NSF.</td>
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<table>
<thead>
<tr>
<th>Proposal B</th>
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<tbody>
<tr>
<td>The evaluator will meet with the project team quarterly to share evaluation results and receive updates on the project. Interim evaluation reports will be used by project team to improve camps and courses. In the final year of the project, the project PI will collaborate with the evaluator to prepare a presentation about the project evaluation that the PI will present at national conferences.</td>
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<tr>
<th>Proposal C</th>
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<tr>
<td>The evaluator will submit annual reports to the project PI and assist the project team in preparing evaluation results for inclusion in the project’s annual report to NSF. Evaluation reports will be shared with the project’s advisory committee.</td>
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</tbody>
</table>
Evaluation Plan ➔ Timeline

- Identify when key evaluation activities will occur in order to produce timely information
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**Major data collection events**

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalize evaluation plan</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Draft and pilot surveys</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Survey camp participants and parents</td>
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<tr>
<td>Follow-up survey of camp participants</td>
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<tr>
<td>Survey AV 100 and AV 150 students</td>
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<tr>
<td>Focus group with students</td>
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<tr>
<td>Reports completed (Annual, Final)</td>
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<tr>
<td>Evaluation feedback session</td>
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</table>

Meetings with evaluator

- Reporting

- Reporting

**Include in evaluation section OR within overall project timeline**
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RESOURCE
Evaluation Plan Template

EvaluATE ATE Proposal Evaluation Plan Template
This template is for use in preparing the evaluation plan sections for proposals in the National Science Foundation's Advanced Technology Education (ATE) program, and is based on the ATE Evaluation Scoring Checklist (see https://ateevaluation.org/), developed by EvalUATE. It is aligned with the evaluation sections included in the ATE Program Manual. We suggest using and the modifications in the ATE Program Proposal Guidance sheet and Evaluation Plan Checklist. It is important to be consistent with content items about your proposal project's evaluation. Only the text under Proposal Description. The evaluation plan should incorporate an in-use assessment of your proposal project's initial impact.

Evaluation Plan
Identify the goals and objectives of your proposal project, and the overall evaluation strategy that will be used to assess the project's success. The evaluation plan should include:

- Description of evaluation activities, including data collection methods, data analysis methods, and data management plans.
- Plan for disseminating evaluation results to project stakeholders and the broader community.

Resource
Evaluation Plan Template

2
Integrating Evaluation Throughout a Proposal

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Beyond the Evaluation Plan

- Results from Prior NSF Support
- Budget and Budget Justification
- Data Management Plan
- References

Results from Prior NSF Support
Results from Prior NSF Support

This subsection must contain **specific outcomes and results**, including metrics to demonstrate the impact of the project activities.

**Intellectual Merit**
advancement of knowledge

**Broader Impacts**
benefit to society

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**POLL: Which proposal has the best evidence of project outcomes?**

<table>
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<tr>
<th>Proposal A</th>
<th>Proposal B</th>
<th>Proposal C</th>
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<tbody>
<tr>
<td>This project provided internships, mentoring, and advising to first-generation STEM students to increase retention and prepare them for the workforce or advanced degrees.</td>
<td>The project developed three lab manuals, provided 40 faculty with professional development, and served 125 students.</td>
<td>The project supported internships for 75 students, more than half of whom secured full-time positions at their internship sites.</td>
</tr>
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RESOURCE
NSF Prior Support Checklist

Evaluate

Budget and Budget Justification

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The funds to support an evaluator independent of the project or center must be requested. The requested funds must match the scope of the proposed evaluative activities.

**Budgeting for Evaluation**

10% rule of thumb
Budgeting for Evaluation

7%
ATE program average

Evaluator
Consultant or Subaward
Project

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Budget Justification for Evaluator-as-Consultant:

<table>
<thead>
<tr>
<th>Evaluator’s daily rate</th>
<th>Time committed to project</th>
<th>Major tasks and deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DO NOT</strong> give just a lump sum</td>
<td></td>
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<tr>
<td><strong>DO</strong> show individual pay rates</td>
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</tbody>
</table>

- Include under “Consultant Services” in budget
- Include evaluation budget details in Budget Justification
Evaluator Subaward

- Include under “Subawards” in budget
- Apply indirect costs only to first $25K
- Prepare separate budget in NSF format
- Prepare separate budget justification explaining all costs
- Prepare “Current and Pending Support” form for evaluator

Evaluator Consultant or Subaward

NO RULE for which mechanism to use – defer to institution’s/individual’s preference
**Data Management Plan Requirements**

- Types of data and other materials to be produced
- Format of the data
- Policies for access and sharing data
- Policies for use of data by others
- Plans for archiving data for preserving access

Include evaluation data
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References Cited

Include references to evaluation literature

Justify evaluation approach

Justify use of instruments and methods

REFERENCES