The Nuts and Bolts of ATE Evaluation Reporting

May 15, 2013

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Introductions

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Materials

Handout
- Slides
- Recording

Available from evalu-ate.org/events/may_2013

or the Recent Additions section of our homepage (through April 2012)
Objectives

By the end of the webinar, you will
1. Know the key elements of an evaluation report and how to organize them effectively
2. Understand the new NSF requirements for Annual, Final, and Outcomes reporting
3. Know how to integrate your evaluation results into those reports
4. Be able to identify ways your evaluation can bring additional value to your projects

Introductions & Housekeeping
Part 1: Elements of an Effective Evaluation Report
Question Break
Part 2: NSF Reporting Requirements
Question Break
Part 3: Beyond Reporting
Question Break
Closing Remarks & Evaluation Survey
Elements of an Effective ATE Evaluation Report

Discussion Topics

Common pitfalls in evaluation reporting

Components and organization of an evaluation report

Characteristics of a good evaluation report
Common Pitfalls in evaluation reporting

- Not providing sufficient resolutions to an evaluation question/objective
- Presenting every data point
- Organizing by data source
**Report Components**

**FRONT MATTER**
- EXECUTIVE SUMMARY
- INTRODUCTION
- EVALUATION QUESTIONS
- METHODOLOGY
- FINDINGS
- CONCLUSIONS
- LIMITATIONS
- RECOMMENDATIONS
- REFERENCES
- APPENDICES

**EXECUTIVE SUMMARY**
Title page
Acknowledgements
Table of contents
Lists of figures
List of tables

**Succinct report summary (1-2 pages)**
- Context of project and evaluation
- Organize by evaluation questions
- Answer each evaluation question
- Most important recommendations
- Most important limitations
### Report Components

**Background of evaluation team**
- Context of the ATE project or center
- Main audience for evaluation

**FRONT MATTER**
- EXECUTIVE SUMMARY
- INTRODUCTION
- EVALUATION QUESTIONS
- METHODOLOGY
- FINDINGS
- CONCLUSIONS
- LIMITATIONS
- RECOMMENDATIONS
- REFERENCES
- APPENDICES

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**Example**

To what extent has the project increased interdisciplinary collaboration among faculty?

**Example**

How effectively has engaged underrepresented minority students?

**About a project’s reach, quality, and effectiveness**

Typically require multiple data sources and methods to answer
**Report Components**

**Report Components**

**Important questions that frame the evaluation**

3 to 7 key questions

Questions lead to actionable answers

Questions are relevant to the information needs of the most important users

- E. Jane Davidson

**Report Components**

**Important questions that frame the evaluation**

3 to 7 key questions

Questions lead to actionable answers

Questions are relevant to the information needs of the most important users

- E. Jane Davidson
Report Components

Organize by key evaluation questions
Start each section with answers
Base findings on data/evidence
Use graphics
Combine evidence
Use reasoning

- E. Jane Davidson

Report Components

Only include if a higher level synthesis of the findings has occurred
**Report Components**

**State important limitations only**

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<th>FRONT MATTER</th>
<th>EXECUTIVE SUMMARY</th>
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<th>LIMITATIONS</th>
<th>RECOMMENDATIONS</th>
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**Ground in evidence**

Forecast cost and difficulty

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**Report Components**

Be sure to cite your sources


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**Report Components**

_Instruments_  
(surveys, interview protocols, etc.)

_Detailed results_  
(can be organized by data method/source)

_Further discussion of methodology_  
(if desired and appropriate)
**Report Layers**

**Executive Summary**: President of institution
Dean of college
Chair of department
Dissemination to others

**Report Layers**

**Executive Summary**: Project Staff
NSF Program Officer
Use in NSF reporting
Advocacy
New funding opportunities
**Report Layers**

- FRONT MATTER: 1 page per item
- EXECUTIVE SUMMARY: 1-2 pages
- INTRODUCTION: 1-2 pages
- EVALUATION QUESTIONS: ½ - 1 page
- METHODOLOGY: 2-5 pages
- FINDINGS: 3-9 pages
- CONCLUSIONS: 0-3 pages
- LIMITATIONS: ½-1 page
- RECOMMENDATIONS: 0-3 pages
- REFERENCES: 1-2 pages
- APPENDICES: Whatever it takes +

**Report Characteristics**

- Well organized
- Clear
- Concise
- Readable
- Relevant to users
- Credible and transparent
NSF Annual and Project Outcomes Reports

New NSF Reporting Requirements

- Project outcomes reports
- Conversion of reporting system to Research.gov
Quiz

Which statement is correct?

A. Annual reports are due within 90 days prior to budget end date
B. Final reports are due on the award expiration date of the grant
C. Project Outcomes reports need to be approved by the Program Officer
D. All of the above

NSF Requirements

- Annual reports are due within 90 days prior to budget end period
- Final reports must be submitted within 90 days following the expiration
- Annual reports individually address each reporting year
- Final report should only address the last year
Grant Reporting

March 13, 2013

Research.gov

For More Information
- Project Report Preview
  This document previews the new project report format, questions, and screen shots and can be used to help your organization prepare for the transition.
- Project Reporting Fact Sheet
  In March 2013, NSF will completely transfer all project reporting from FastLane to Research.gov.
- Project Report Frequently Asked Questions for Research Organizations
  Background on reporting requirements and answers to common technical questions.
- Project Reporting Getting Started Guide
  Prepare and submit your Final, Annual, and Interim Project Reports on Research.gov.
- Project Reports On Research.gov—What's In It For Me?
  Presented January 2013
- Project Outcomes Report Fact Sheet
  Principal Investigators can find all the facts to prepare and submit the Project Outcomes Report for the General Public, a brief summary for the public that describes the intellectual merit and broader impacts of their NSF-funded research project.
- NSF Project Report Template
  This template allows PIs and Co-PIs to plan for their final, annual, and interim project reporting requirements offline. PIs should not use this form to meet their reporting requirements, and instead must use text boxes to complete their reports on Research.gov.
My Desktop

Project Reporting Dashboard

* Annual, Final and Interim Report
  View, complete and submit reporting requirements

* Project Outcomes Report: 4 Total
  Due (0) | Overdue (0) | Submitted (0) | Not Yet Due (4)
Annual and final report components:

Report Content

- Cover
- Accomplishments
- Products
- Participants
- Impact
- Changes/Problems
- Special Requirements

Goals
- Major Activities
- Specific Objectives
- Significant Results
- Key Outcomes

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Key outcomes: the evaluation activities and report support this
- Evaluators can help PIs think in terms of outcomes
- An evaluation report can be appended here
Opportunity

- The PI and evaluator can work together to create a section in the evaluation report that calls out key outcomes
- This will integrate directly into the PI’s report

Research.gov

Annual and final report components:

Report Content

- This is the area to include goals associated with data management and access
- Typically the evaluator will be involved in the data management structure
Annual and final report components:

Report Content

- Refers to impact on the discipline or other disciplines

- Changes in the approach and reasons for change
- Guidelines for changes
- Changes can impact timing and expenditure
Annual and final report components:

Report Content

- The reality is midpoint corrections happen
- A report is credible if you face problems and challenges head on

Changes/Problems

- The evaluator's input is critical here to help support the rationale and to identify unexpected outcomes
Grant Management Tip: Federal Audit Identified Risk Areas

- Inaccurate effort reporting
- Misallocation of costs
- Excessive cost transfers
- Unallowable costs
- Inadequate subrecipient monitoring
- Delinquent reporting to sponsor

As a PI

I missed a report deadline!

- Automated notifications sent to my vice chancellor
- Co-PIs were notified and prevented from seeking additional grants until report was submitted
Project Outcomes Reports

- Do not take the place of the annual or final project reports
- An overdue one will delay NSF actions on any other proposal or award related to the PI or co-PIs

Project Outcomes Reports

- Brief summary (200-800 words)
- Specifically for the public
- Describes project outcomes or findings that address the intellectual merit and broader impacts of the work

Key outcomes emphasized in the evaluation report will totally support this
Summary

Report Content

- PI’s responsibility to know the reporting system
- PIs and evaluators can work together to create timely and credible reports
- Change happens

Beyond Reporting

Lori
Evaluation Should Add Value

$64,000,000 Awarded annually to ATE grantees

7% Average percentage of budget spent on evaluation

$4,480,000 Estimated amount spent on evaluation annually

Evaluation Uses Beyond Reporting

1. Improve
2. Redirect
3. Disseminate
4. Grow
Improve

“You don’t have to be bad to get better.”

—Candi McKay

Improve

“The most important purpose of evaluation is not to prove, but to improve.”

—Daniel Stufflebeam
Consider Recommendations

- Adoption not required
- Should be carefully considered

Read Every Comment

(especially the less favorable ones)
Read Every Comment

Open-ended Comments

“There could be more outreach to those preparing proposals.”

Read Every Comment

Open-ended Comments

“I would like to get more email notifications when recorded webinars are available.”

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**Read Every Comment**

PIs and project staff, ask yourselves:
- What resonates with your perceptions of the project or information from other sources?
- Are any comments suggestive of a “blind spot” that needs to be investigated?

**Disaggregate**

Lori
Disaggregate

Is the program effective?

For what kinds of participants, in what ways, and under what conditions is the program most effective?

For whom is it least effective?

—Michael Quinn Patton, Utilization-Focused Evaluation, p. 541

Disaggregate

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<tr>
<th>Rating</th>
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<td>Good</td>
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<tr>
<td>Poor</td>
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</tr>
</tbody>
</table>
Disaggregate

- Excellent
- Very Good
- Good
- Fair
- Poor

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Make Time

- Put evaluation at the top of team meeting agendas and/or
- Set up special meetings to discuss and reflect on evaluation results
Remember that significant changes in objectives and scope require prior approval of the agency.

Describe any changes in approach during the reporting period and reasons for these changes.
Redirect

Prioritize effectiveness over fidelity

Redirect

Was the project implemented as planned?

What are the lessons learned about what works and doesn’t?

What significant changes are needed?
**Disseminate**

Marketing
Advocacy
Publication

**Disseminate**

Intellectual Merit
Is the evaluation likely to provide useful information to the project and others?

Broader Impacts
Will the project evaluation inform others through the communication of results?
Disseminate

Highlights reports
Journal articles
Press releases

Highlights Report

Middle School Underwater Robotics: 2011 MATE Program Highlights

An independent evaluation found that after participating in the MATE program...

Students are more interested in math and science:
- 65% were interested in studying science, computer science, and computer engineering
- 60% knew more about careers in marine science
- 85% were more interested in marine STEM careers

Students were more interested in taking STEM courses

Teachers saw improvements in student learning:
- 75% saw increased motivation in their students
- 80% increased student participation in class
- 70% also saw improvements in writing, critical thinking, and problem-solving

Parents provided positive feedback:
- 90% reported that their children feel more confident
- 85% reported that their children were better able to work with others
- 80% reported that their children’s self-confidence had improved
- 80% reported that their children were better organized

When participants had to say:
- Teachers
  - I really liked it. It helped learn how to work as a team and try something new.
  - More MATEs! It was my favorite this year.
- Students
  - We did a great job and we learned a lot. We built the robot.
  - We were happy about our learning and excited to spend more time at school.

Parents
- More programs, improved problem-solving skills
- Needed more opportunities for students to practice new skills

For more information about the MATE Center and the MATE program, contact:

MATE Center
300 Front Street - Norwalk, CT 06854
203.882.6562
www.matecenter.org

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**Journal Articles**

Publish findings in scholarly journals

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**Journal Articles**

Life Sciences focus
- student engagement
- efficacy of particular approaches to teaching

Recommended by ATE PI
Linnea Fletcher
Journal Articles

Recommended by ATE PI Edgar Troudt

"Wish List of Topic Areas":
- Evidence-based teaching practices
- Peer review of teaching and learning
- Distance learning
- Diversity issues
- Designing cultures of learning
- Reflective learning
- Pedagogical theory
- Strategies to support and/or connect with first-generation college students

Journal Articles

"exchange of ideas, research, and empirically tested educational innovations"

Lori Journal Articles

Journals of the Scholarship of Teaching and Learning

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Journal Articles


Peer partnerships in teaching: Evaluation of a voluntary model of professional development in tertiary education

Andrea Chester

Abstract: This paper describes work over a three-year period to develop a peer partnership approach to professional development at a dual sector university. The aim of the program, arising initially in one school and then piloted in 5 schools, was to support staff in their teaching practice. Emphasis was on the development of a sustainable model of professional development that could accommodate staff at all levels of teaching experience, including permanent and sessional staff in Higher Education and TAFE. Based on evidence from a university-wide survey of staff attitudes and feedback from initial trials, a five-stage model of voluntary, cross-disciplinary partnerships was developed. Quantitative results suggest the program had impact on pedagogy and skill development as well as enhancing collegial relationships between staff within schools. Suggestions for the future development of such programs are offered.

Keywords: reflective practice; professional development; peer review; peer feedback; staff.

The challenges that lie ahead for universities to deliver and continuously improve the quality of learning and teaching are complex and varied. Core to these challenges is the need to provide meaningful continuing professional development (CPD) for the academic workforce. Collaborative peer review, designed to document, critique and improve teaching offers a powerful approach to CPD that better relates with other academic and institutional activities.

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Journal Articles


Developing a Test of Scientific Literacy Skills (TOSLS): Measuring Undergraduates’ Evaluation of Scientific Information and Arguments

Casa Gormaly,* Peggy Brickman,* and Mary Lutz†

*Georgia Institute of Technology, School of Biology, Atlanta, GA 30302; †Department of Plant Biology and Department of Educational Psychology and Instructional Technology, University of Georgia, Athens, GA 30602

Monitoring Editor: Jocelyn Rees

Life sciences faculty agree that developing scientific literacy is an integral part of undergraduate education and report that they teach these skills. However, few measures of scientific literacy are available to assess students’ proficiency in using scientific literacy skills to solve scenarios as and beyond the undergraduate biology classroom. In this paper, we describe the development, validation, and testing of the Test of Scientific Literacy Skills (TOSLS) in two general education biology classrooms at three undergraduate institutions. The test measures skills related to major aspects of scientific literacy including and analyzing the use of methods of inquiry that lead to scientific knowledge and the ability to organize, analyze, and interpret quantitative data and scientific information. Measures of reliability included correspondence between items and scientific literacy goals of the National Research Council’s Project 2061, findings from a survey of biology faculty expert biology educator reviews, student interviews, and statistical analyses. Classroom testing contexts varied both in terms of student demographics and pedagogical approaches. We propose that biology instructors can use the TOSLS to evaluate their students’ performance in using scientific literacy skills and to document the impacts of curricular changes on students’ scientific literacy.
Journal Articles


ENHANCING INSTRUCTIONAL PROGRAMS THROUGH EVALUATION: TRANSLATING THEORY INTO PRACTICE

Janet C. Perry
Fox Valley Technical College, Appleton, Wisconsin, USA

This article describes an instructional program evaluation process used at Fox Valley Technical College, Appleton, Wisconsin. Evidence indicates that this is a reliable process which can be used to enhance instructional programs. This evidence was uncovered during a recent evaluation designed to determine appropriate changes.

Journal Articles


Promoting Undergraduate Interest, Preparedness, and Professional Pursuit in the Sciences: An Outcomes Evaluation of the SURE Program at Emory University

Benjamin Junge, Catherine Quiñones, Jakub Keketic, Daniel Teodosescu, and PA Mersiwer

Submitted August 14, 2000; Revised January 8, 2001; Accepted January 17, 2001

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**Press Releases**

- Identify the person on campus in charge of public relations
- Ask him or her for the protocol for generating press releases

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**Grow**

Requests for funding to continue, expand
“Grow

The Project Description must begin with the subsection on **Results of Prior Support**....
This subsection must contain specific outcomes and results including metrics to demonstrate the impact of the activities undertaken including **evidence of the quality and effectiveness** of the project's deliverables.

—ATE Program Solicitation

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Resource Library
Evaluator Directory
Events (including past webinars)
Newsletters
Thank You