

CENTER news

EvaluATE has been funded for another 4 years! A heartfelt thanks to everyone who has participated with us and contributed to our work so far. We are pleased to be able to spend another four years working with the ATE community to advance the state of the art of evaluation within the ATE program.

EvaluATE is featured in the October 2012 issue of *International Innovation*: www.research-europe.com.

Congratulations to the evaluators selected to receive the ATE PI conference scholarship from EvaluATE. We're looking forward to a great workshop!

EvaluATE's PI, Lori Wingate, is now Kirkpatrick-certified! (see right). Watch for webinars and resources to help ATE grantees and evaluators apply the model in their contexts.



Welcome to the EvaluATE team, Krystin Martens! Krystin will take a lead role in developing our webinar curriculum.



Lana Rucks of The Rucks Group is EvaluATE's new external evaluator. Welcome, Lana!



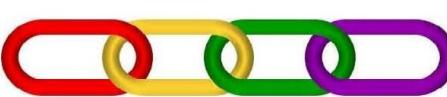
In this issue

Conduit editor: Lori Wingate

Kirkpatrick Model for ATE Evaluation

The Kirkpatrick Model is an evaluation framework organized around four levels of impact: Reaction, Learning, Behavior, and Results. It was developed more than 50 years ago by Jim's father, Dr. Don Kirkpatrick, specifically for evaluating training initiatives in business settings. For decades, it has been widely believed that the four levels are applicable only to evaluating the effectiveness of corporate training programs. However, we and hundreds of global "four-level ambassadors"—including Lori Wingate and her colleagues at EvaluATE—have applied Kirkpatrick with success outside of the typical "training" box. The Kirkpatrick Model has broad appeal because of its practical, results-oriented approach.

The Kirkpatrick Model provides the foundation for evaluating almost any kind of social, business, health or education intervention. The process starts with identifying "what success will look like" and driving through with a well-coordinated, targeted plan of support, accountability, and measurement. It is a framework for demonstrating ultimate value through a compelling chain of evidence.



Level 1: Reaction Level 2: Learning Level 3: Behavior Level 4: Results

Whether your ATE grant is focused on enhancing a curricular program, providing professional development to faculty, developing educational materials, or serving as a resource and dissemination center, the four levels are relevant. At the most basic level (Level 1: Reaction), you need to know what

your participants think of your work and your products. If they don't value what you're providing, you have little chance of producing higher-level results. Next, it's important to determine how and to what extent their knowledge, skills, attitudes, confidence, and/or commitment changed because of the resources and follow-up support you provided (Level 2: Learning). Many evaluations, unfortunately, don't go beyond Level 2. But it's a big mistake to assume that if learning takes place, behaviors change and results happen. It's critical to determine the extent to which people are doing things differently because of their new knowledge, skill, etc. (Level 3: Behavior). Finally, you need to be able to answer, so what? In the ATE context, that means determining how your work has impacted the landscape of advanced technological education and workforce development (Level 4: Results).

The four levels are the foundation of the model, but there is much more to it. We hope you'll take the time to examine and reflect on how this approach can bring value to your initiative and its evaluation. To learn more about Kirkpatrick, visit our website at kirkpatrickpartners.com, where you'll find a wealth of free resources, as well as information on our certificate and certification programs. And don't miss EvaluATE's upcoming webinar, ATE Evaluation: Measuring Learning, Reaction, Behavior and Results (see p. 4 for more information).

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EVALUATION terminology

Impact evaluation involves assessing what has changed because of an intervention. In order to measure the change, you must have something against which to compare your results.

Baseline Data are observations of a situation prior to or at the beginning of an intervention. These data may be in the form of aggregate, institutional-level statistics (such as the number of women or under-represented minorities in a given program) or pretest data for students in a single course. When comparing your results with baseline data, make sure your units of analysis are comparable. Multiple baseline observations are helpful for determining preexisting trends (such as increasing or decreasing enrollment).

A Control Group does not receive the treatment in a study with an experimental design. The treatment and control groups are otherwise equivalent due to random assignment. Experimental designs with randomly assigned experimental and control groups are not common in ATE evaluation.

A Comparison Group is similar to a control group in that the members do not receive the intervention, but they are not randomly assigned and they may be involved in a different type of treatment. For example, you might compare outcomes for students in an innovative ATE-funded course with those in a traditional course.

REAL QUESTIONS REAL ANSWERS

In our recent ATE Evaluation 101 webinar, I stated that a deliverable that PIs should expect from their evaluators is a detailed evaluation plan. An audience member asked what should go into that plan. For someone new to the world of grant evaluation, it would be reasonable to wonder what should be in that plan beyond what was included in the original grant proposal.

The evaluation section of a typical ATE proposal is 1-2 pages. The purpose of this section is to convey the focus and general approach for the evaluation. It may also be where you described your evaluator's qualifications. While this is a good foundation, it's probably not an actionable plan, given its brevity. Moreover, moving a project from paper into the real world often calls for a reality check about what can be done with available resources (time, money, personnel). A detailed evaluation plan will be grounded in the main points you included in your proposal evaluation plan, with more detail. In giving guidance to ATE proposers, we stress that a proposal evaluation plan should include the four elements below. The full evaluation plan should have enough detail to serve as a guide for implementing the evaluation:

1. Focus of the evaluation. The focus should be stated as evaluation questions or objectives. If your project's scope or emphasis has changed since you wrote the proposal, you'll want to revisit the focus to make sure the evaluation is well aligned with the project's goals.

2. Data collection plan. The data collection plan from your proposal should have specified what information would be collected, from what sources and using what methods, by whom, and when. Chances are you had some fairly general information here, such as "a survey of students will be administered at the beginning and end of each semester." Now is the time to get specific: Will the

What are the key elements of an evaluation plan?

survey be paper-and-pencil or Web-based? Who will administer it? Will it be anonymous or confidential? Do instruments need to be developed and validated? A data collection schedule should be specified.

3. Analytical and interpretive procedures. How will you use data collected from various sources to answer your evaluation questions? How will you make sense of the data? What sorts of comparisons will be made (see left)? How will success be determined? This is often the least developed aspect of an evaluation plan at the proposal stage and needs to be thought through before data collection begins.

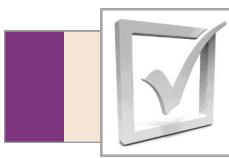
4. Reporting schedule and projected uses. This is your opportunity to make sure you and your evaluator are clear about when data or reports are needed for things like the annual ATE survey, NSF annual reports, advisory panel meetings, and new proposals. If there are internal and external components for the evaluation, the plan needs to be clear about who is responsible for what and how the information will be used in concert to reach evaluative conclusions.

When you're an extremely busy PI or evaluator, it is hard to set aside the time to develop a detailed evaluation plan. But this is one of those cases when "an ounce of prevention is worth a pound of cure." The more planning you do upfront, the fewer problems there will be later on. See also:

- *ATE Evaluation 101* webinar materials: eval-ate.org/events/pastevents
- *Evaluation Plans and Operations Checklist:* www.wmich.edu/evalctr/wp-content/uploads/2010/05/plans_operations1.pdf
- *Planning a Program Evaluation:* learningstore.uwex.edu/assets/pdfs/G3658-1.PDF

—Lori Wingate

*Do you have a question about ATE evaluation?
email me at lori.wingate@wmich.edu*



CHECKLISTS for planning and launching evaluations

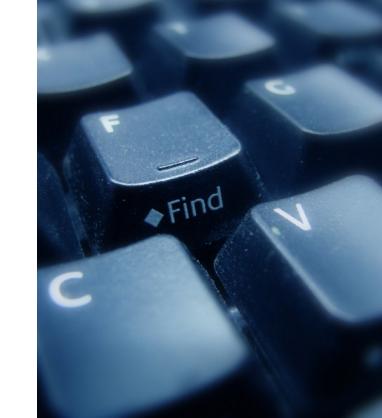
To assist ATE proposers navigate the intersection of proposal development and evaluation planning, we've drafted an **Evaluation Planning Checklist for ATE Proposals**.

There is more to addressing evaluation in your proposal than including a section on evaluation in your 15-page project description. Information pertinent to your evaluation should also be evident in your project summary, references, results of prior NSF support (first part of the project description for those who've received NSF funding before), budget and budget justification, and supplementary documents (including a biosketch for your evaluator). Organized by proposal component, the checklist

provides details, beyond what you'll find in the program solicitation, about what you need to know and do in order to integrate evaluation into your proposal.

The checklist is still labeled "draft" because we need ATE community feedback to improve the checklist and ensure it's useful in practice. Send your suggestions to lori.wingate@wmich.edu. Try it out this proposal season and let us know how to make it better.

Another checklist designed to help ATE PIs jumpstart the evaluation process is now available. The **Principal Investigator "To-Do" Checklist: Before Launching Your Project Evaluation** was created by



veteran ATE PI and evaluator Elaine Craft. The checklist provides guidance about what ATE PIs should do at the start of a project with regard to evaluation. As Co-PI for the South Carolina ATE National Resource Center for Expanding Excellence in Technician Education, PI for the new ATE Mentor-Connect Project, and evaluator for numerous projects, Elaine has plenty of practice-based wisdom in this area, which she has distilled in checklist form to help new PIs.

Find these checklists and other resources at www.eval-ate.org



Reporting ATE evaluation results

Annual reports to NSF, annual ATE survey, ATE Impact books, your next NSF proposal, advisory panel meetings, and PR for your grant. These are all places you should be reporting your ATE project/center evaluation results.

Annual grant reports submitted via FastLane are due within 90 days before the end of the current budget period. If this deadline isn't on your calendar yet, put it there now and make sure your evaluator knows what he or she will need to provide for it. Your evaluation results may be embedded in your annual report, or a full evaluation report may be appended to your FastLane report. Either way, make sure you're including key findings and lessons learned in your annual report to your program officer. If you're a new

grantee and you're not sure what goes into an annual report, we've distilled the NSF annual report requirements into a single document—search on the keyword, "FastLane" at eval-ate.org/featured_resources.

The **Annual ATE Survey** takes place from mid-February to mid-March. Key metrics to be reported here include numbers of professional development activities and participants, number of materials developed and their dissemination, number of students and their demographics. You may preview the survey questions at eval-ate.org/annual_survey.

The **ATE Impact books** and websites for projects and centers are wonderful PR for the ATE program. Developed and disseminated by

MATEC, ATE PIs are asked annually to provide hard data on their grant's impact on students success and the workforce. See www.atecenters.org and www.ateprojectimpact.org.

If the PI or a co-PI on an ATE proposal has received prior funding from NSF, the proposal must begin with a section "**Results from Prior Support**." Here reviewers are going to be looking for "evidence of the quality and effectiveness of" your prior work. This means your evaluation results. Even if you just received your first grant, it's not too early to start thinking ahead to what you will want to be able to report here. See Section II.2.d.3 of the *NSF Grant Proposal Guide* at www.nsf.gov.

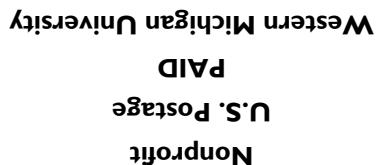
EvaluATE is operated by the Western Michigan University Evaluation Center and funded by the National Science Foundation under grant numbers 0802245 and 1204683. The views expressed in this newsletter are those of the authors and do not necessarily reflect those of the National Science Foundation.

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The Evaluation Center

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Upcoming Events

ATE Evaluation: Measuring Reaction, Learning, Behavior, and Results

Workshop and webinar participants will learn about evaluating their ATE initiatives in practical, yet meaningful ways. The Kirkpatrick “Levels” model for evaluation is a systematic approach for assessing a project’s quality and effectiveness in terms of participants’ satisfaction, learning of the material, application of new skills or content, and the resulting impact on performance. Attendees will learn about what questions should drive data collection at each level, steps to take to obtain data of sufficient quantity and quality, and how to interpret and use the evaluation results. Special attention will be given to strategies for tracking program graduates to determine their employment and education outcomes.

Both the workshop and webinar will feature Lori Wingate, PI for EvaluATE, the ATE Evaluation Resource Center at Western Michigan University, and Kevin Cooper, PI for the Regional Center For Nuclear Energy Education and Training at Indian River State College.

PRECONFERENCE WORKSHOP

October 24 | 1-5 pm ET

Register at www.aacc.nche.edu/2012ATE

WEBINAR

November 28 | 1-2:30 pm ET

Register at www.evalu-ate.org/events

EvaluATE @ the ATE PI Conference October 24-26, 2012

Wednesday 1-5 p.m. | Preconference workshop—ATE Evaluation: Measuring Reaction, Learning, Behavior, and Results (see above)

Wednesday 7:30-9:45 p.m. | Showcase #209-210

Thursday 2:30-3:45 p.m. and 4-5:15 p.m. | Birds of a Feather Session—Beyond Satisfaction and Short-Term Self-Reports: Evaluating the Impact of Your ATE Grant (facilitators include ATE evaluators Penny Billman, David Hata, Peter Saflund, and Lovell Smith)