

Objectives

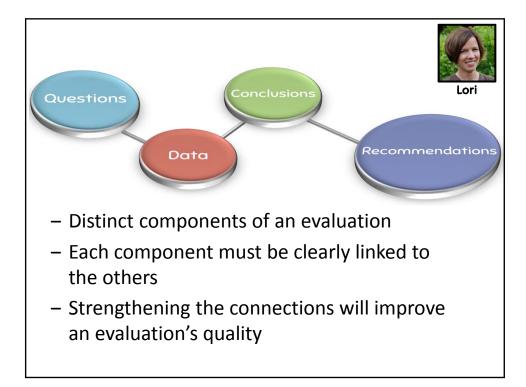


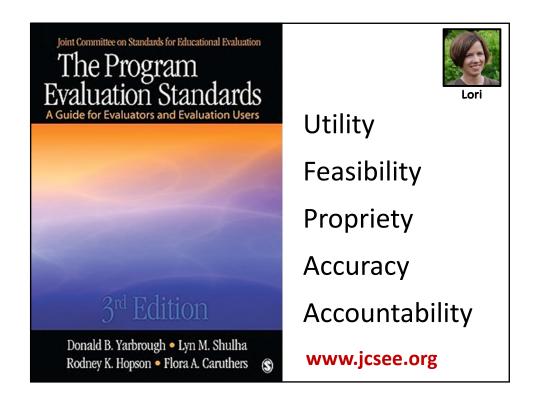
Krystin

Participants will

- 1. Deepen their understanding of the importance of appropriate and well-written evaluation questions.
- 2. Know the key considerations for developing sound evaluation questions.
- 3. Be able to strengthen the linkages between evaluation questions, data, conclusions, and recommendations.









Evaluation Questions



LOT

Overarching questions about a project's **merit**, **worth**, or **significance** that the evaluation seeks to answer based on evidence

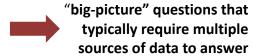
Evaluation Questions



Lori

merit worth significance



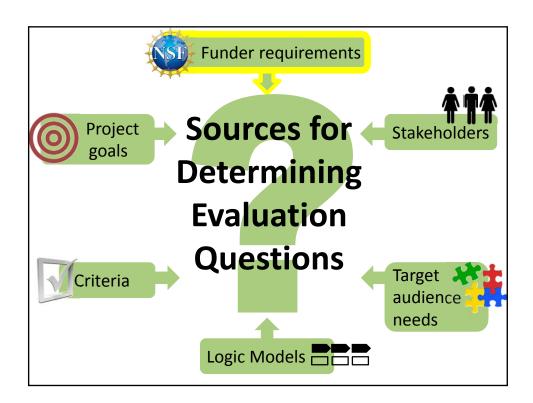


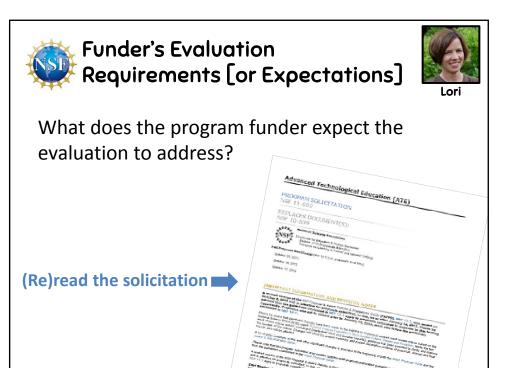
Evaluation Questions

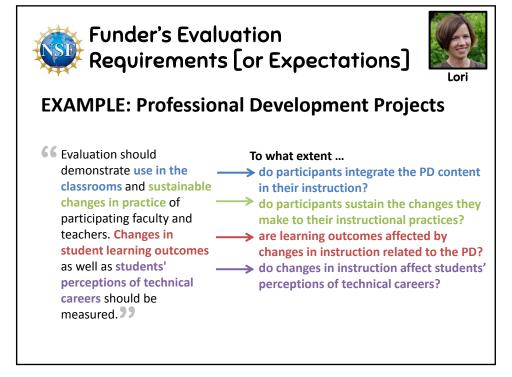


66 Questions establish boundaries for the evaluation by stating what aspects of the program will be addressed.

CDC Framework for Program Evaluation in Public Health ftp://ftp.cdc.gov/pub/Publications/mmwr/rr/rr4811.pdf











EXAMPLE: Occupational Safety and Health Training Projects

- **66** The application must describe an evaluation plan to review and determine the quality and effectiveness of the proposed training program. This should include plans to obtain feedback from current and former trainees to help identify weaknesses in the program and to provide suggestions for program improvements. (recommendations are expected)
 - → What is the quality of the training program? How effective is the training program?
 - (this type of evidence is valued)
 - What are the strengths and weaknesses of the training program?

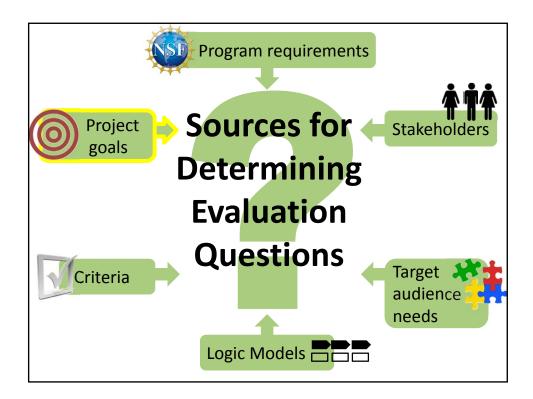




EXAMPLE: Occupational Safety and Health Training Projects

QUALITY What is the quality of the training program? and How effective is the training program? **EFFECTIVENESS**

need to be defined and unpacked



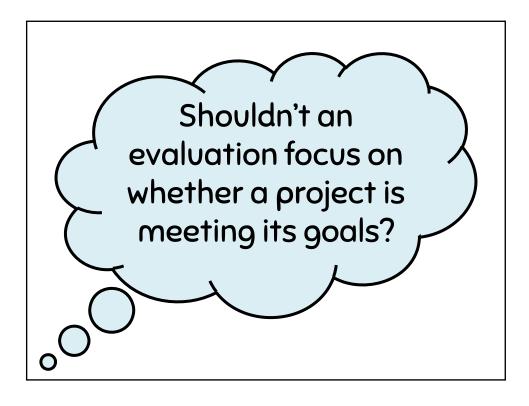


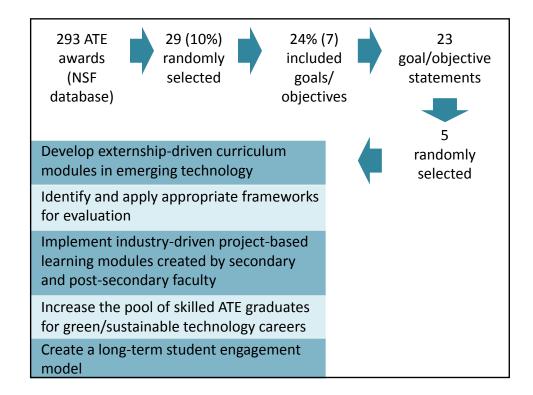


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What is the project seeking to achieve? What was the project funded to achieve?

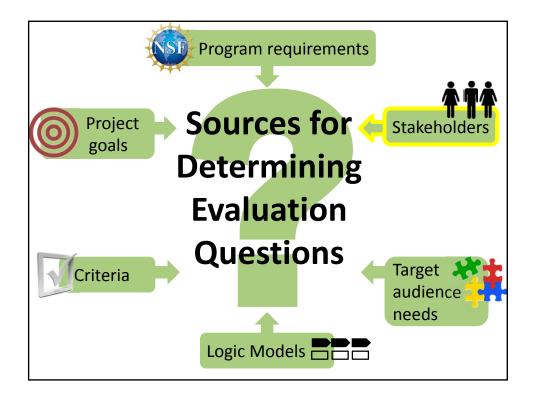
make sure evaluation questions clearly align with project purposes





Are these ATE goal/objective statements focused on project	PROCESS - Activities - Products	OUTCOMES Changes in - Knowledge,
PROCESS or OUTCOMES? What a project does What difference	- People reached	- Behavior - Broader conditions
Develop externship-driven curriculum modules in emerging technology		
Identify and apply appropriate frameworks for evaluation		
Implement industry-driven project-based learning modules created by secondary and post-secondary faculty		
Increase the pool of skilled ATE graduates for green/sustainable technology careers		
Create a long-term student engagement model		

An evaluation should include, but not be limited to, assessing whether goals were met.







Lori

Individuals who are involved in or affected by the project and its evaluation

Intended users: Individuals in a position to make decisions about a project based on the evaluation results

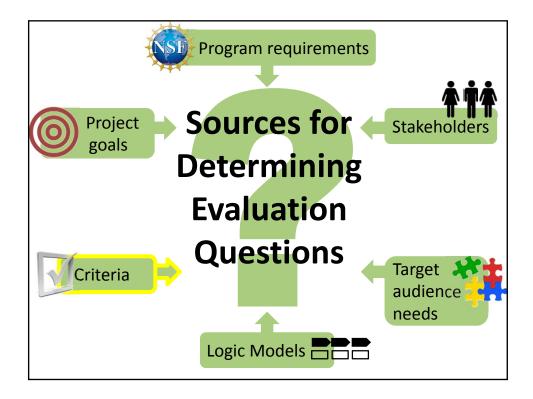
* Takeholders



Lor

Ask:

- What do you hope to learn from the evaluation?
- What, if any decisions will be influenced by the results?





External Criteria



LOT

What makes this type of intervention good or successful?



External Criteria

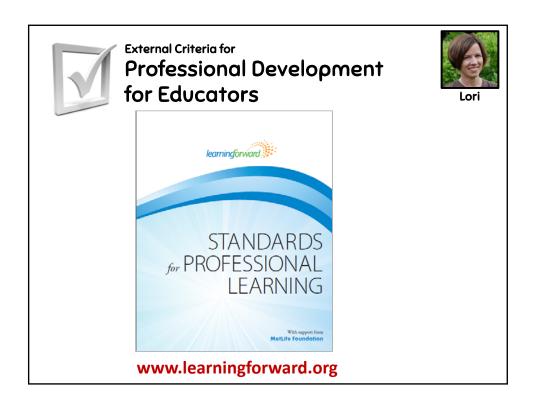


Lori

- Research-based
- Authoritative
- Generally accepted quality standards



Especially useful for assessing quality in process evaluation (implementation, content, products)









LOT

Criteria established by accrediting organizations, e.g.,



NATEF > automotive programs



engineering and technology programs



External Criteria for Public Health Interventions



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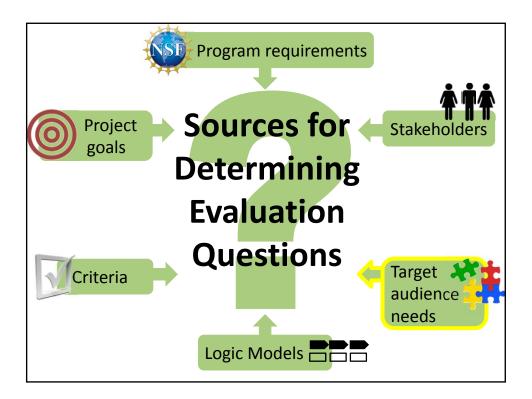


WHO Guidelines



Morbidity and Mortality Weekly Report (MMWR)

Guidelines and recommendations



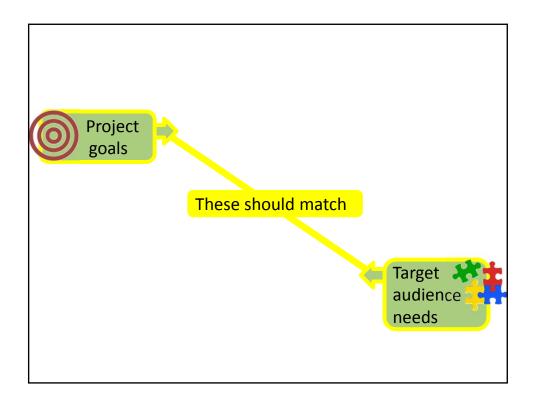


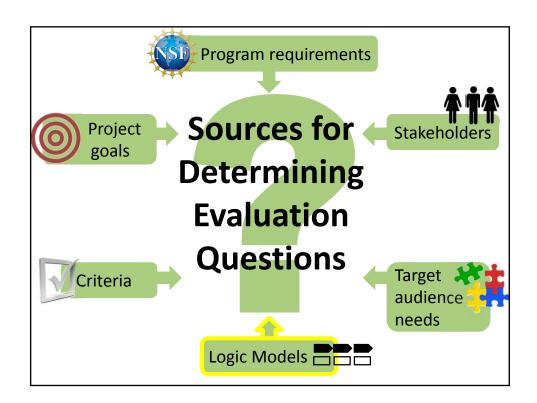


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What do those being served by the project need?

What gap(s) in services, opportunities, or products is the project addresses?



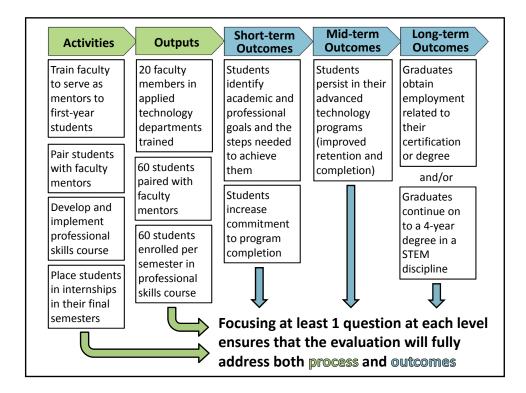






Lori

What results should be achieved at each stage of the project?







LOT

Overlaying evaluation questions on a logic model may reveal flaws in the model.

If so, then it's a good time to revisit









Goals Sta

Stakeholders

Criteria

Needs

Evaluation questions are essential to an evaluation because they...



Lori

- Focus the evaluation
- Point to the types of evidence needed
- Set the stage for conclusions and recommendations

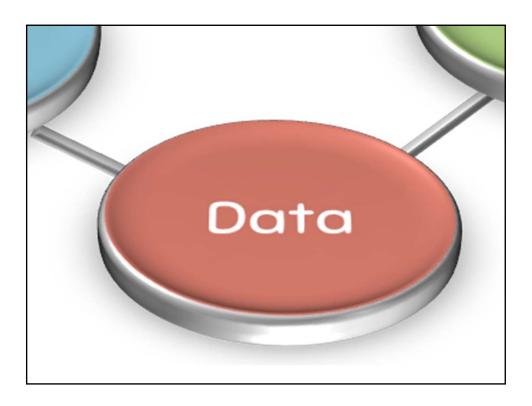
Discussion



Goldie MacDonald



Lori Wingate



1. Indicator



Lori



: a sign that shows the condition or existence of something

: a pointer or light that shows the state or condition of something

2. Data



Lori



: factual information ... used as a basis for reasoning, discussion, or calculation

3. Evidence



Lori



: something which shows that something else exists or is true

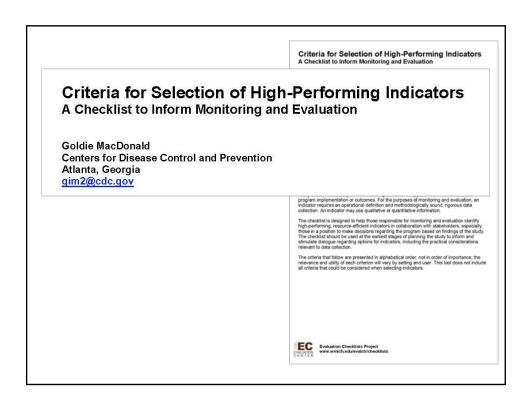
Aligning data with questions



Lori

- 1. Determine what **indicators** will help answer the evaluation questions.
- 2. Determine how data for the indicators will be collected.
- 3. Think ahead to how data may need to be combined to generate credible **evidence** to inform conclusions.

A common pitfall is to concentrate exclusively on data



Accepted Practice and History of Use Applicability in Different Settings Availability of Data	Criteria for Selection of High-Performing Indicators A Checklist to Inform Monitoring and Evaluation Goldie MacDonald Centers for Disease Control and Prevention Atlanta, Genia ginn 28cdc.gov
Burden of Data Collection on Participants	The chedisti includes practice-based criteria to be considered in the selection of indicators for use in monitoring and evaluation. The selection of indicators can be a complex, time-consuming task. In some casser, this process is no make explicit to stakeholders. Moreover: those expected to participate in this work come to the discussion with varying levels of throwledge relevant to monitoring and evaluation. Therefore, how do we assess that
Clarity of Focus and Meaning	quality of Indicators proposed for use? And, how do we encourage full participation of stakeholders in this discipace? The purpose of the checksits is three-fold; (1) aid in establishing a process and shared vocabulary for dialogue with stakeholders regarding the selection of indicators; (2) reinforce the necessary connection of indicators to the evaluation
Cultural Appropriateness and Relevance	questions to be addressed by the shuly, and (3) contribute to design of data collection activates more clearly linked to interaction uses of financiary. As a starting point, what is an indicator? The term is used widely with variation in meaning and application. For the purposes of this rebedist are included to as documentable or measureable piece of information regarding same aspect of the program in question in e.g., characteristics of the program. Faces of implementation or service delivery, outcomes, in the characteristics of the program. Faces of implementation or service delivery, outcomes, in the characteristics of the program. Faces of implementation or service delivery, outcomes, in the characteristics of the program. Faces of implementation or service delivery, outcomes, in the characteristics of the program. Faces of implementation or service delivery, outcomes, in the characteristics of the program. Faces of implementation or service delivery, outcomes, in the characteristics of the program in the characteristics of the characteristics of the program in the characteristics of the characteristics of the program in the program in the characteristics of the characteristics of the program in the characteristics of the program in the characteristic
Data Quality	characteristics in the program, such as implementation in service derivery, outcomes, in many cases, indicators provide a meaningful marker or approximation of the status of program implementation or outcomes. For the purposes of monitoring and evaluation, an indicator requires an operational definition and methodologically sound, rigorous data collection. An indicator may use qualitative or quantitative information.
Investment of Resources	The checklist is designed to help those responsible for monitoring and evaluation identify high-performing, resource-efficient indicators in collaboration with stakeholders, especially those in a position to make decisions regarding the program based on findings of the study.
Opportunity to Detect Unexpected or Unintended Findings	The checkist should be used at the earliest stages of planning the study to inform and stimulate discipure regarding optons for indicators, including the practical considerations relevant to data collection. The criteria that follow are presented in alphabetical order, not in order of importance; the relevance and utility of each criterion will vary by setting and user. This tool does not include
Pathway for Use of Data	all criteria that could be considered when selecting indicators.
Relevance to Evaluation Questions	
Strength of Evidence or Substantive Merit	
Value within a Set of Indicators	Evaluation Checklists Project Evaluation Evaluation checklists Project www.wmich.ectu/evalctrichecklists

☐ Relevance to Evaluation Questions

The degree to which an indicator helps to address predefined evaluation questions Criteria for Selection of High-Performing Indicators A Checklist to Inform Monitoring and Evaluation

Goldie MacDonald Centers for Disease Control and Prevention Atlanta, Georgia gim2@cdc.gov

The checkets includes practice based criteria to be considered in the selection of indicators for use in monitoring and evaluation. The selection of indicators can be a complex, timeconsuming task. In some cases, this process is not made explicit for stakeholders. Moreover, flower expected to participate in this work come for the discussion with varying levels of knowledge retevent to monitoring and evaluation. Therefore, how do we assess the quality of indicators proposed for user? And, how do we encurage full participation of stakeholders in this discipace? The purpose of the checklest is three-fold; (1) aid in stakeholders in this discipace? The purpose of the checklest is three-fold; (1) aid in stakeholders in this discipace? The purpose of the checklest is three-fold; (1) aid in stakeholders in this discipace? The purpose of the checklest is three-fold; (1) aid in stakeholders in this discipace? The purpose of the checklest is three-fold; (1) aid in stakeholders in the discipace of the checklest in the checklest in stakeholders in the discipace of the checklest in stakeholders in the discipace of the checklest in the checklest stakeholders in the checklest of the checklest in the checklest stakeholders in the checklest of the checklest stakeholders in the checklest of the checklest stakeholders in the checklest stakeholders st

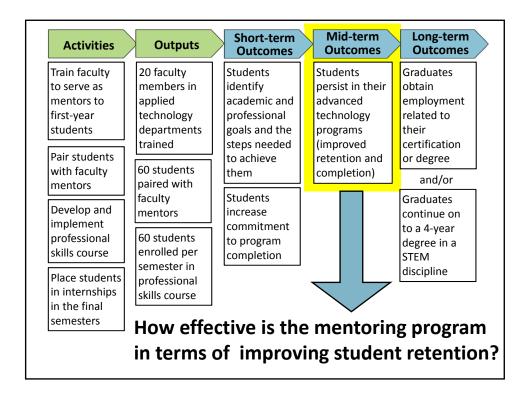
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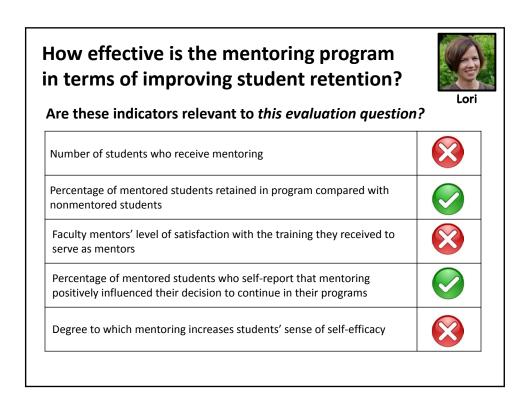
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EC EVALUATION CENTER

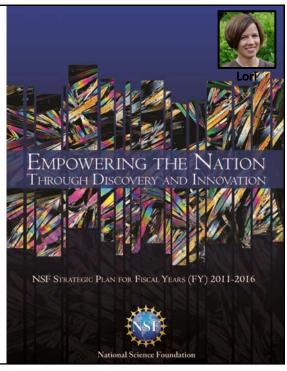
Evaluation Checklists Project www.wmich.edu/evalctr/checkli

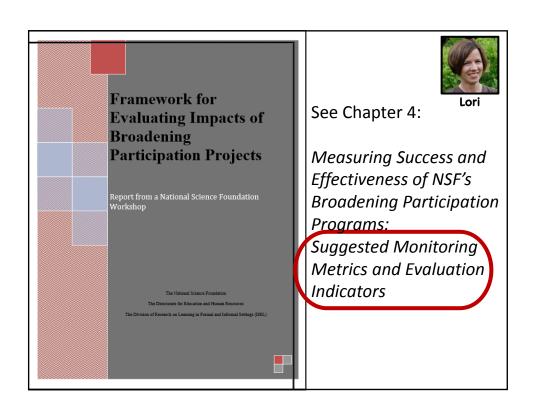






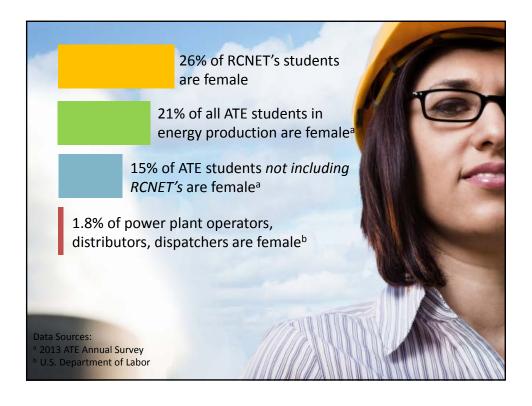
- Women
- Minorities
- Persons with disabilities













Comments



Goldie MacDonald

Criteria for Selection of High-Performing Indicators A Checklist to Inform Monitoring and Evaluation

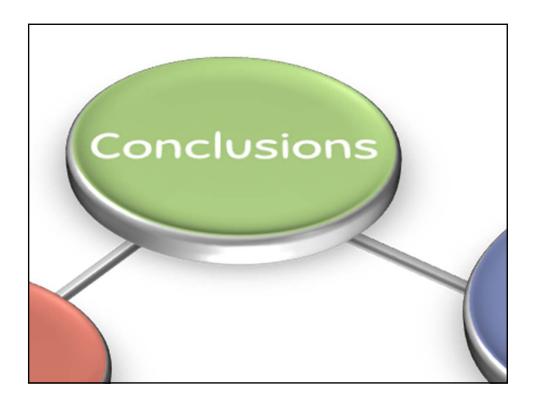
Goldie MacDonald Centers for Disease Control and Prevention Atlanta, Georgia gim2@cdc.gov



Goldie

- ☐ Accepted Practice and History of Use
- ☐ Applicability in Different Settings
- Availability of Data
- Burden of Data Collection on Participants
- ☐ Clarity of Focus and Meaning
- ☐ Cultural Appropriateness and Relevance
- Data Quality

- ☐ Investment of Resources
- Opportunity to Detect Unexpected or Unintended Findings
- ☐ Pathway for Use of Data
- ☐ Relevance to Evaluation Questions
- ☐ Strength of Evidence or Substantive Merit
- ☐ Value within a Set of Indicators



Conclusions

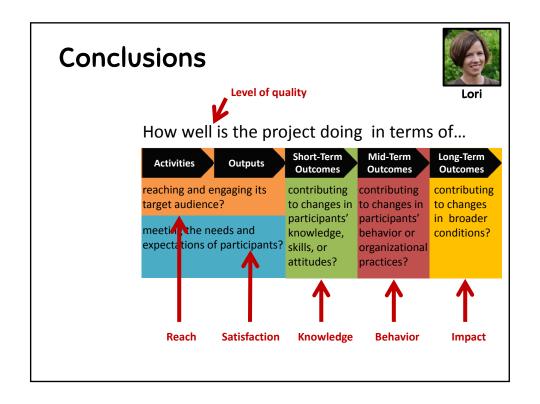


Lori

Answers to the evaluation questions.

If the question is	The answer should be about	Examples
To what extent has the project increased the representation of women in the college's engineering programs?	Level and direction of change	The project has resulted in a moderate increase in the representation of women in engineering at the college.
What is the quality of workshops?	Level of quality	Overall, the workshops are excellent.
How replicable is the project's approach to student engagement?	Degree of replicability	The project's approach to student engagement is partially replicable.

Answers to the evaluation questions. If the question is... The answer should be about To what extent has the prongress of the college's enconditions necessary for determining attribution What is the quality of workshops? How replicable is the project's approach to student engagement? Lori Examples Examples Examples Examples Examples Can meet methodological tion of women in the college's enconditions necessary for determining attribution Overall, the workshops are excellent. The project's approach to student engagement is partially replicable.





All-Purpose Holistic Rubric Clear example of exemplary performance or best Excellent practice in this domain; no weaknesses Good Very good or excellent performance on virtually all aspects; strong overall but not exemplary; no weaknesses of any real consequence **Adequate** Reasonably good performance overall; might have a few slight weaknesses but nothing serious Marginal Fair performance, some serious (but nonfatal) weaknesses on a few aspects Clear evidence of unsatisfactory functioning; serious Poor weaknesses across the board or on crucial aspects Source: Table 8.2 from Evaluation Methodology Basics by Jane Davidson (2005)

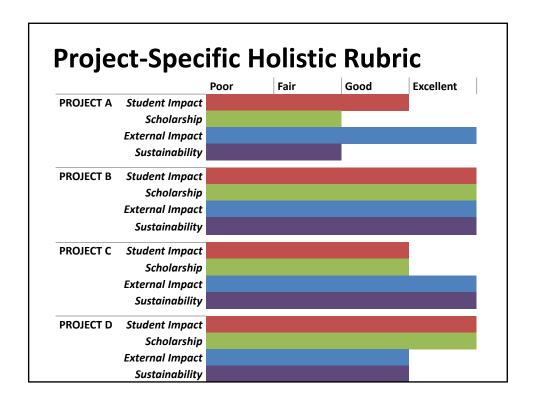
Project-Specific Holistic Rubric Fair Poor Good **Excellent** No set plan for how to Students engaged at least Students engaged in a Clear strategy for engaging Student sporadically in experiential systematic way in experiential students under the auspices engage students either learning activities; there is talk of a certificate or degree of the project through both experiential learning and a **Impact** through coursework or learning or a degree/certificate program, experiential learning under the auspices of but may need further degree/certificate program the project development Minimal plans for obtaining Clear plan for obtaining No established plan for Scholarship obtaining external grants external funding; proposals grants and contracts in focus external grants or contracts; or contracts; no evidence of activity in this area some proposals submitted have been submitted Evidence of some scholarship, Evidence of some scholarship Strong record of substantial No evidence of advancing but may not be obviously directly related to the project scholarship directly related to scholarship related to project the project Could bring national attention Not clear how the project Potential to raise the to college through exceptional Likely to attract national contributes to enhancing institution's stature in national performance in its focus area attention through its perceptions of college distinctive focus, assets, or rankings or perceptions if successfully implemented innovation No set plans for external Some ideas for external External engagement, either Project has a strong external focus that is central to its **External** engagement, but few have engagement through service or been implemented yet collaborations, is an important part of the project mission, with demonstrable **Impact** impacts on the community attributable to the project/institution. No clear plan for Some ideas for becoming Grants or contracts may bring Very likely that grants, Sustainability significant external support to contracts, and/or fees will be a supporting the center by partially self-sustaining but grants, contracts, and/or need to be further developed the project, but it depends on significant and stable source of forces beyond the control of support for the project the project; fees or other revenue streams are likely to provide stable income

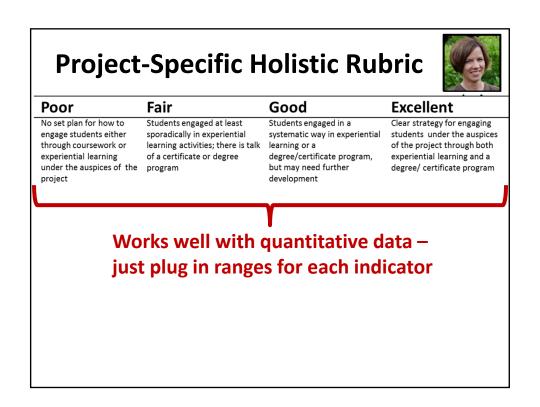
Project-Specific Holistic Rubric



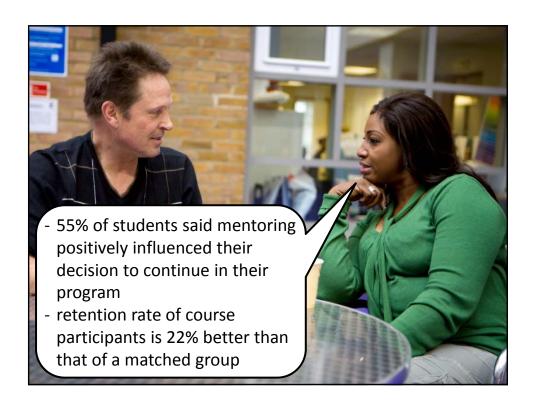
Student Impact Rubric

l				
I	Poor	Fair	Good	Excellent
	No set plan for how to engage students either through coursework or experiential learning under the auspices of the project	Students engaged at least sporadically in experiential learning activities; there is talk of a certificate or degree program	Students engaged in a systematic way in experiential learning or a degree/certificate program, but may need further development	Clear strategy for engaging students under the auspices of the project through both experiential learning and a degree/certificate program















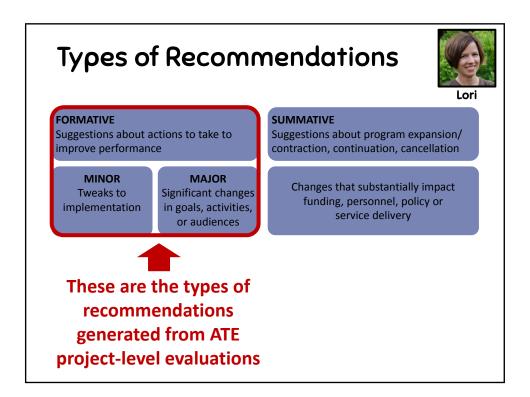


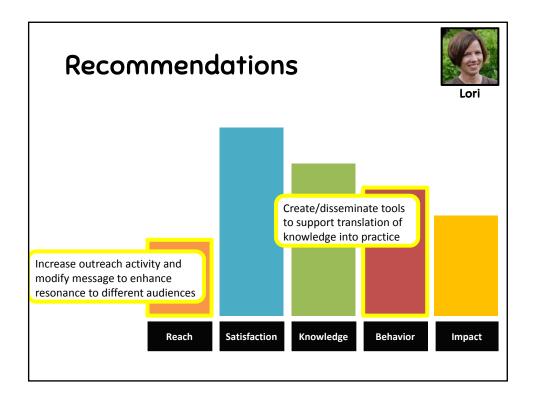
Recommendations

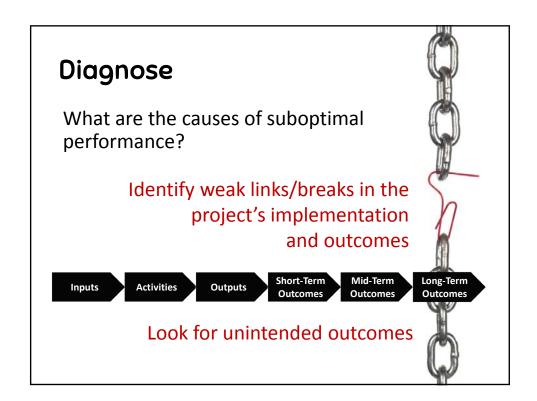


LOT

Proposed actions for improving a project's performance based on evidence







Evaluation Recommendation Tips

Lori

Developing

- To the extent reasonable at the design stage, determine the nature of recommendations needed or expected.
- 1. Generate possible recommendations throughout the evaluation, not just at the end.
- 2. Base recommendations on evaluation findings and other credible sources.
- 3. Engage stakeholders in developing and/or reviewing recommendations prior to their finalization
- 4. Focus recommendations on actions within the control of intended users.
- 5. To the extent reasonable, provide multiple options for achieving desired results.

Presenting

- 7. Clearly distinguish between findings and recommendations.
- 8. Write recommendations in a clear and actionable way.
- 9. Specify the justification/information sources for each recommendation.
- 10. To the extent reasonable, explain the costs, benefits, and challenges associated with implementing recommendations.
- 11. Exercise political sensitivity in the focus and wording of recommendations.
- 12. Categorize recommendations, such as by type, focus, and/or priority.

Following-up

- 13. Meet with stakeholders to review and discuss recommendations in their final form.
- 14. Provide tools to facilitate decision making and action planning around recommendations.

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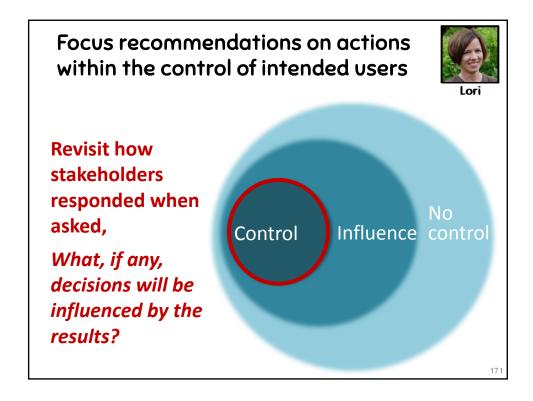
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Following-up

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- Provide tools to facilitate decision making and action planning around recommendations.

Specify the justification/information sources for each recommendation.



Lori

Recommendation

Provide additional in-person workshops in lieu of more Webbased tutorials.

Justification

- Workshop participants learned more and expressed greater satisfaction than those who completed Web-based tutorials.
- There are technical problems with the tutorial system that caused more than half of the users to terminate sessions before completing.

Specify the justification/information sources for each recommendation.



Lori

Proposed actions for improving a project's performance **based on evidence**

What information sources other than evaluation results might influence evaluation recommendations?

Specify the justification/information sources for each recommendation.



Lori

- Give precedence to evaluation findings
- Consult research literature/established best practices
- Acknowledge the influence of personal experience/substantive expertise
- Use common sense

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Evaluation Recommendation Tips



Developing

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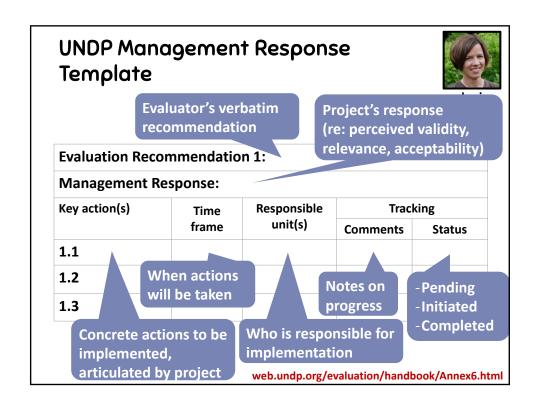
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Provide tools to facilitate decision making and action planning around recommendations.

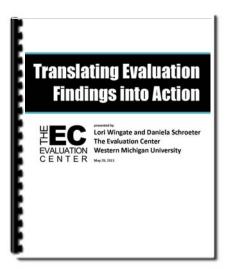
Provide tools to facilitate decision making and action planning around recommendations.

- Record decisions
- Assign responsibilities
- Set deadlines
- Track progress





Want to Know More about Evaluation Recommendations?



www.wmich.edu/evalctr/2010/06/lori-wingate-ph-d/



A Three Stage Process for Effective Program Evaluation

The program evaluation process outlined here is one that has been specifically designed to examine technology's impact on student achievement. It is one which has been used very successfully in large and small school districts to assess initiatives ranging from grantfunded projects to the implementation of entire district technology plans. Regardless of scope, the same three basic "stages" apply. These are:

Stage 1: Establish Process and Create Indicators

Stage 2: Collect and Analyze Data Stage 3: Recommend and Report

Effective technology evaluation develops your capacity to improve, build upon, and effectively integrate educational technology district-wide. A district's data can be combined with research-based knowledge on how technology can improve teaching and learning and used to inspire reflection and change. The Three Stage Technology Evaluation will help you visualize what is possible in your district and

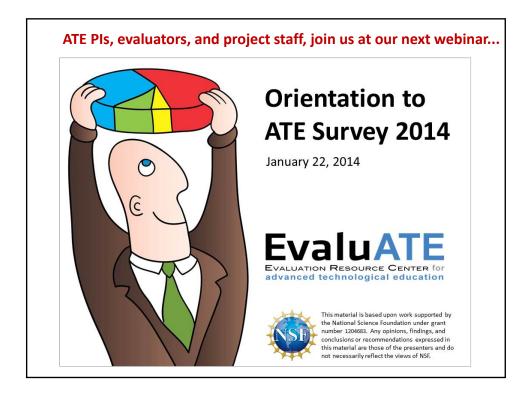
reach that vision.

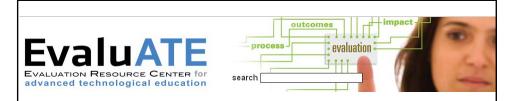
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Comments



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www.evalu-ate.org

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Thank you! You! Evaluation Resource Center for advanced technological education