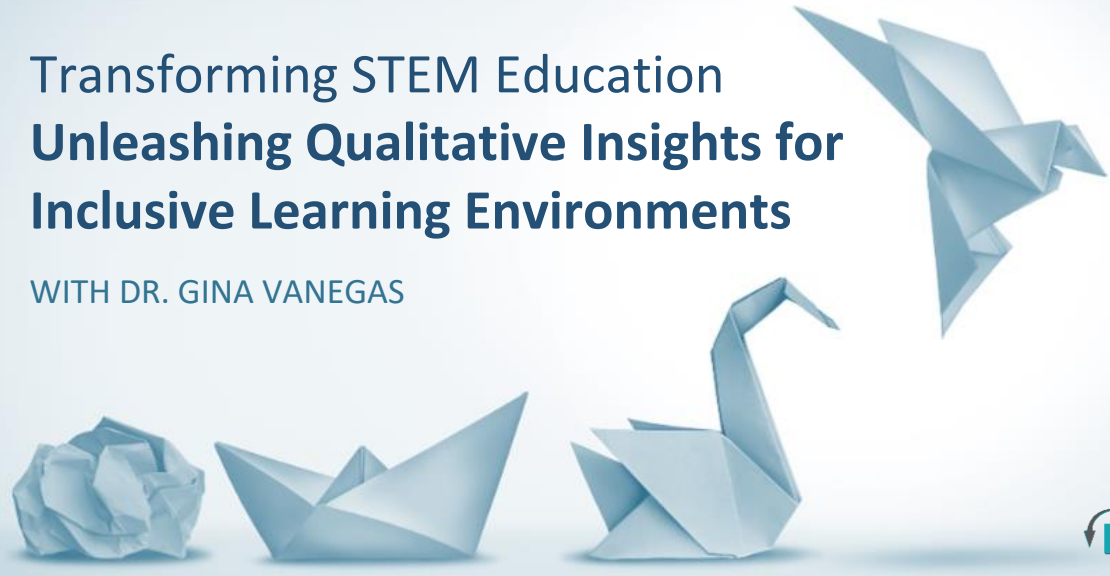


Transforming STEM Education Unleashing Qualitative Insights for Inclusive Learning Environments

WITH DR. GINA VANEGAS



1



Working towards an ATE community in which
evaluation is valued, systematic, and used
to improve the education of technicians
in high-tech fields.

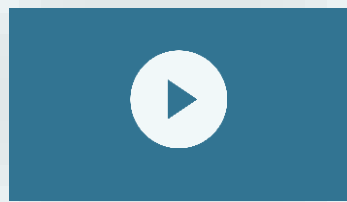


2

Materials



Slides



Recording



3

Introductions



Samantha

Hooker



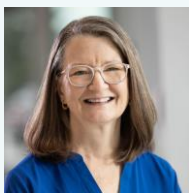
Gina

Vanegas



4

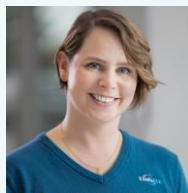
Behind the Scenes



**Maureen
Green**



**Kelly
Robertson**



**Lyssa
Wilson
Becho**



**Megan
López**



**Lori
Wingate**



**Erika
Sturgis**



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Special Thank You



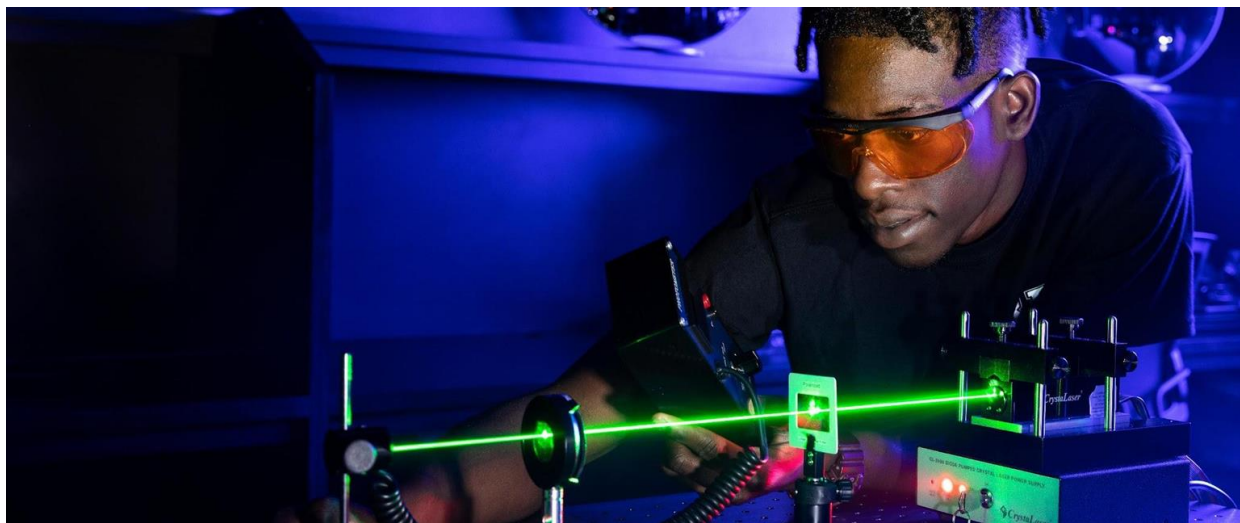
**Maureen
Hoffman**



**Carolyn
Williams-
Noren**



6



Advanced Technological Education Program

www.nsf.gov/ate



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This material is based upon work supported by the National Science Foundation under Grant No. 1841783. The content reflects the views of the authors and not necessarily those of NSF.



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Gina
Vanegas

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Transforming STEM Education: Unleashing Qualitative Insights for Inclusive Learning Environments

Gina Vanegas, M.Ed., Ph.D.
Evaluation Consultant
Health & Inclusivity Speaker

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POLL

ARE YOU AN EVALUATOR, PI, PROJECT STAFF, OR
OTHER?

Use the poll tab
to respond >

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WEBINAR AGENDA

GOAL

Expand your view of how qualitative evaluation can strengthen your project and attune to your project's DEI goals.

1

WHY

2

HOW

12

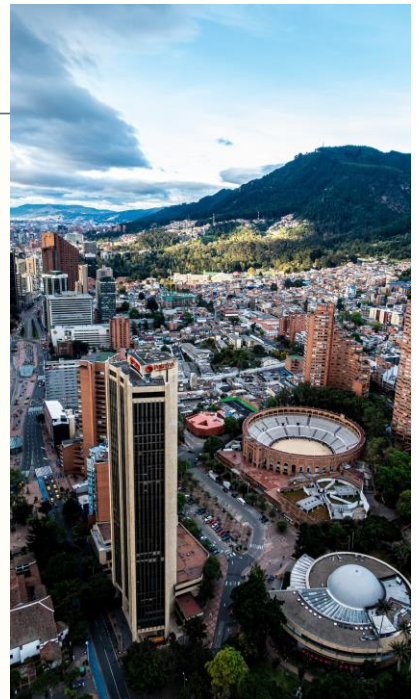
DIVERSITY, EQUITY, & INCLUSION (DEI)

- **Diversity** - of thought, experience, background, people
- **Equity** - not a one-size-fits-all model, cultural relevance
- **Inclusion** - voices matter, belonging, representation
 - **Accessibility** - collection methods, language, technology

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WHAT INFORMS MY PERSPECTIVE

- Born and raised in Bogota, Colombia
- Immigrated to the U.S. at 16 years old
- First-generation college graduate
- Bicultural and bilingual
- She/Her/Ella



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WHY ARE WE HERE?

Qualitative Data

1. Congruent with Oral Traditions

2. Empowering Experience

3. Complexity & Context

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POLL

WHAT TYPES OF QUALITATIVE DATA DO YOU CURRENTLY
USE IN THE EVALUATION OF YOUR PROJECT?

Use the poll tab
to respond >

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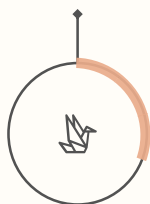
17



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Current Practices in Evaluation

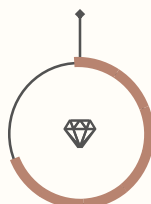
Overuse of surveys



Low response rates and engagement



Lack of cultural congruence



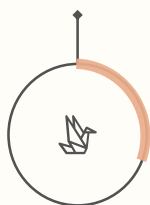
Lack of depth in understanding complex issues



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Current Practices in Evaluation

Overuse of surveys



- Overreliance on reading/writing skills
- Opportunities for connection missing
- One medium for qualitative inquiry

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Current Practices in Evaluation



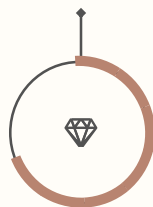
- Rich oral tradition as asset
- Language justice needed
- Context missing

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Current Practices in Evaluation

Low response rates and engagement

- We are all over surveyed
- 15% is a typical response rate
- Distrust as a barrier



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Current Practices in Evaluation

- Limited understanding of a problem
- Focus on outcome rather than process
- Hidden gems hide in the context



**Lack of depth in
understanding
complex issues**

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CHAT

WHAT AREAS IN YOUR CURRENT SURVEYS ARE YOU
CURIOUS ABOUT EXPLORING FURTHER?

Use the chat box
to respond >

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DEI Goals & Evaluation

THE WHY

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HOW DOES EVALUATION CONNECT TO DEI

AN EFFECTIVE AND INCLUSIVE PROJECT EVALUATION WILL HELP:

- Identify inequities
- Effectively respond to needs
- Ensure community buy-in
- Build accountability & transparency
- Increase diversity of voices

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————— ● —————

**Inclusion in education begins
with the way we think about
engagement**

————— ● —————

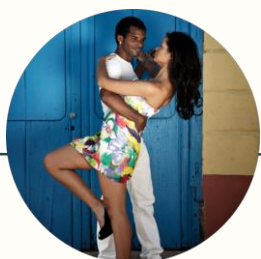
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CONCEPTUALIZING ENGAGEMENT



Individual

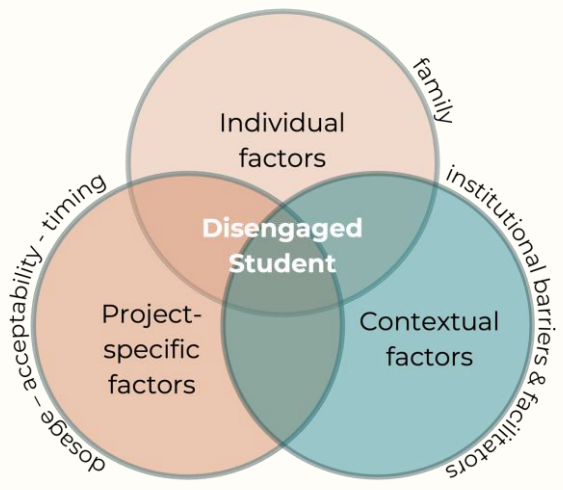


Individual
+
Project

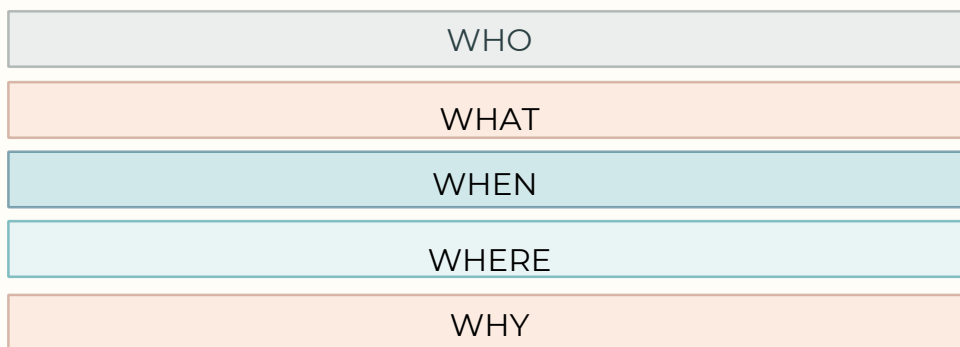


Individual
+
Project
+
Contextual
Factors

CONCEPTUALIZING ENGAGEMENT



CONTEXTUALIZING THE INDIVIDUAL'S BEHAVIOR



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THE NEED FOR A MORE INCLUSIVE NARRATIVE

- Focus groups & interviews help us glean insights on why an intervention is used and how it does or doesn't work for them.

- Capitalize on the rich oral traditions of communities of color
- Can be empowering for those who participate
- Provide a platform for those who are not typically heard from in research or evaluation.

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QUALITATIVE DATA CAN...

Be culturally congruent.

Provide a rich outlook.

Provide insight into attitudes, behaviors, beliefs.

Provide a platform for participants.

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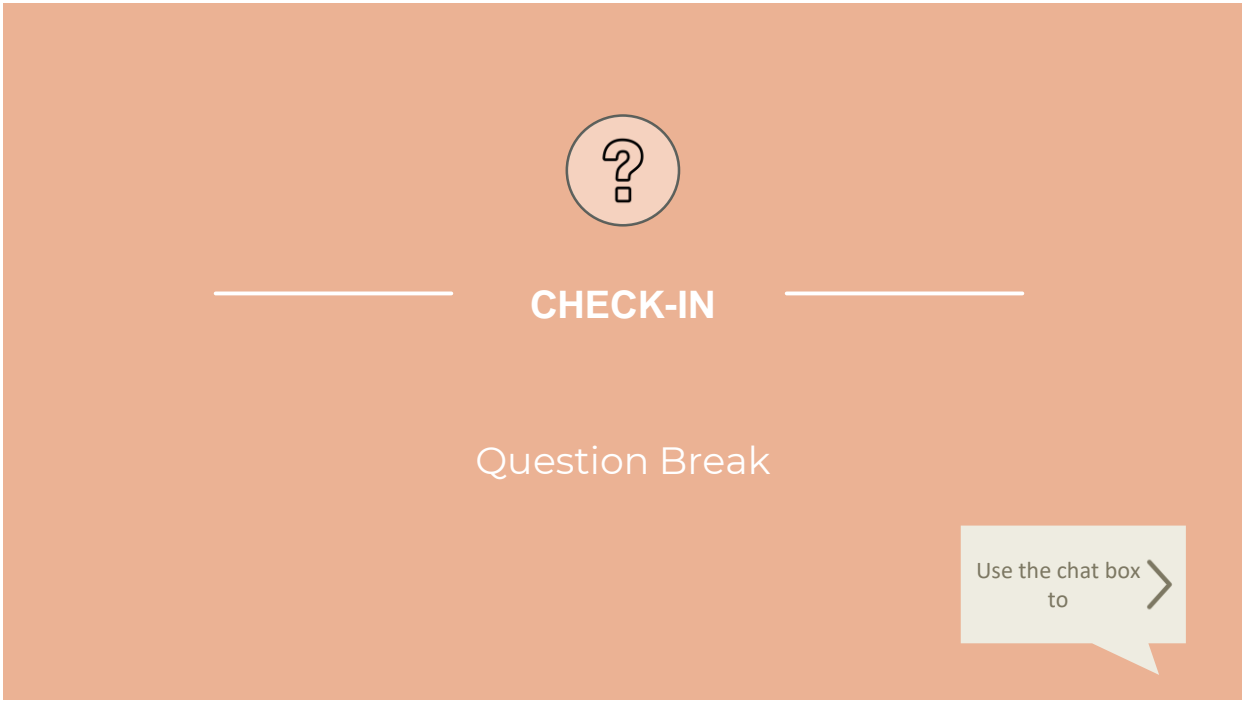


POLL

WHAT HAS PREVENTED YOU FROM
UTILIZING FOCUS GROUPS & INTERVIEWS BEFORE?

Use the poll tab
to respond >

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A slide with an orange background. At the top center is a white question mark icon inside a circle. Below it, the text "CHECK-IN" is centered between two horizontal white lines. Underneath that, the text "Question Break" is centered. In the bottom right corner, there is a white speech bubble containing the text "Use the chat box to" followed by a right-pointing arrow.

35



A slide with a teal background. At the top center are four overlapping circles of varying shades of gray and teal. Below them, the text "The How" is centered in a large, white, sans-serif font.

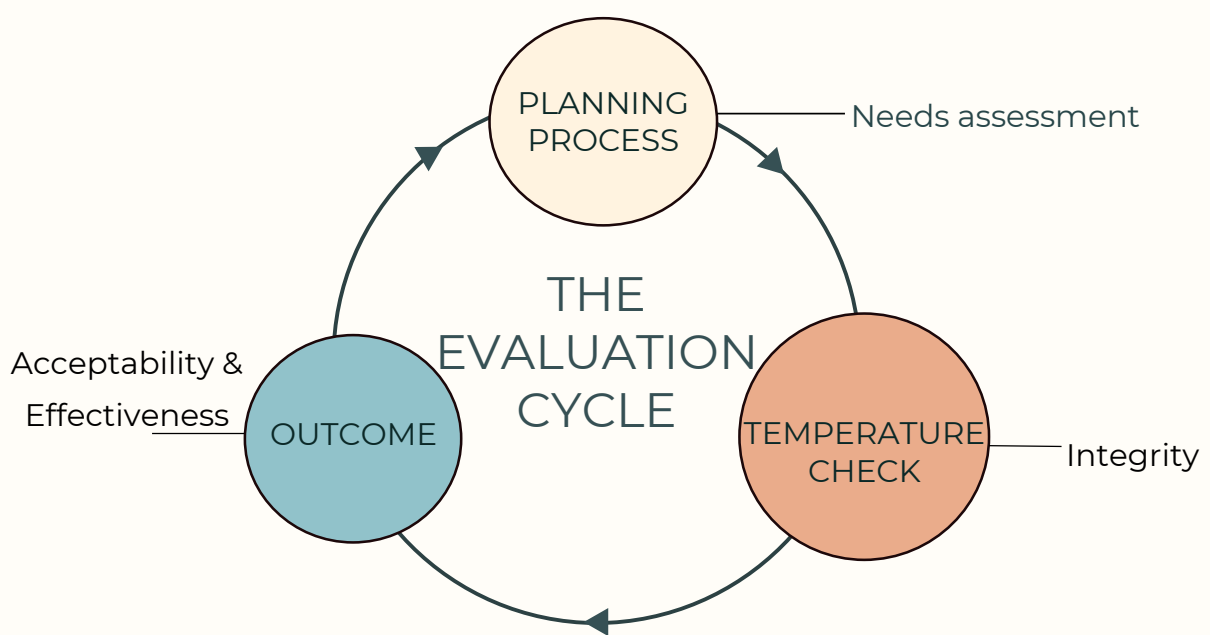
36



Identifying Opportunities for Qualitative Data

THE HOW

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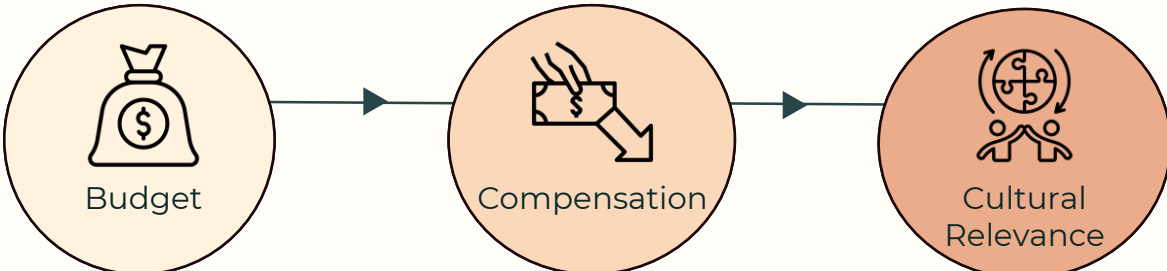


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CONSIDERATIONS FOR A SUCCESSFUL QUALITATIVE STRATEGY



- Focus groups and interviews can be labor intensive.
- Be strategic.

- Beware of reinforcing inequities.

- Language justice,
- Cultural awareness, and
- Representation matters.

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Case Study - The Problem



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Case Study - The Problem



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Case Study - The How

Needs Assessment Curriculum Outcomes

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Case Study - The How

1. Engaged multiple stakeholders in the evaluation process:

School System Family System Outside System

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Case Study - **The How**

1. Engaged multiple stakeholders in the evaluation process
2. Language preferences
3. Attunement to community needs
4. Representation

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Case Study - **The Results**

- 1 Socio-emotional skills
- 2 Cultural awareness & identity exploration
- 3 Takeaways for professional development

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CHECK-IN

Question Break

Use the chat box to >

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Connect

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