Diversity, Equity, & Inclusion in ATE Evaluation

Case Studies of Three ATE Projects

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NSF

EvaluATE

ATE EVALUATION RESOURCE HUB

SPEL

STEM PROGRAM EVALUATION LAB

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Preparing the Workforce for Industry 4.0's Intelligent Industrial Robotics

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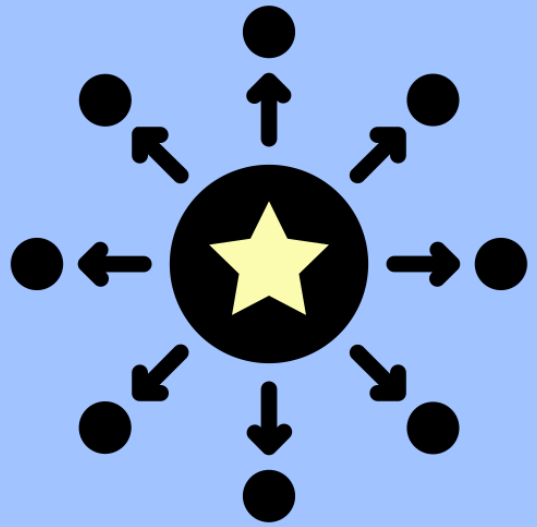
BIOTEC Pathways: Expanding Pathways from High School into the Biotechnology Workforce

Our Why...

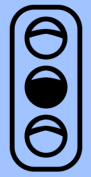
Initially wanted to understand the state of things

Now, interested in proactive and collaborative discovery of how the work can be done better.



Research Questions

What **conditions or resources are necessary** in order for ATE projects to successfully gather and report data on the NAS indicators (DEI)?



What conditions exist in the ATE context (community colleges) that **impede or facilitate the collection of sound data** on equity, diversity, and inclusion?

What is the perceived **validity and utility of project-level data** on equity, diversity, and inclusion?

Our Methodology

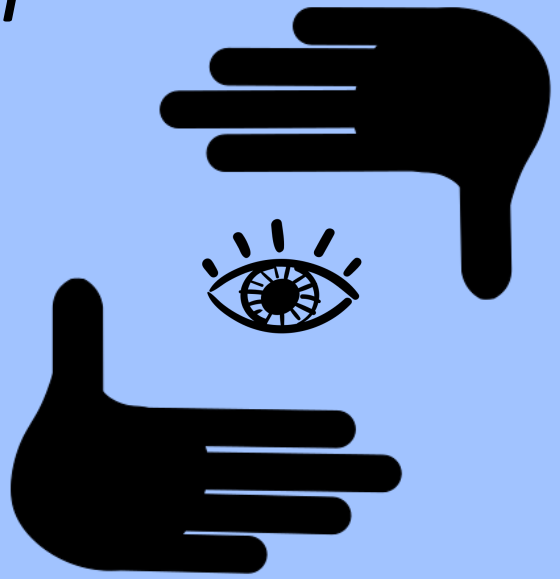
Reflective and design-based action research

Reflect to understand the context deeply

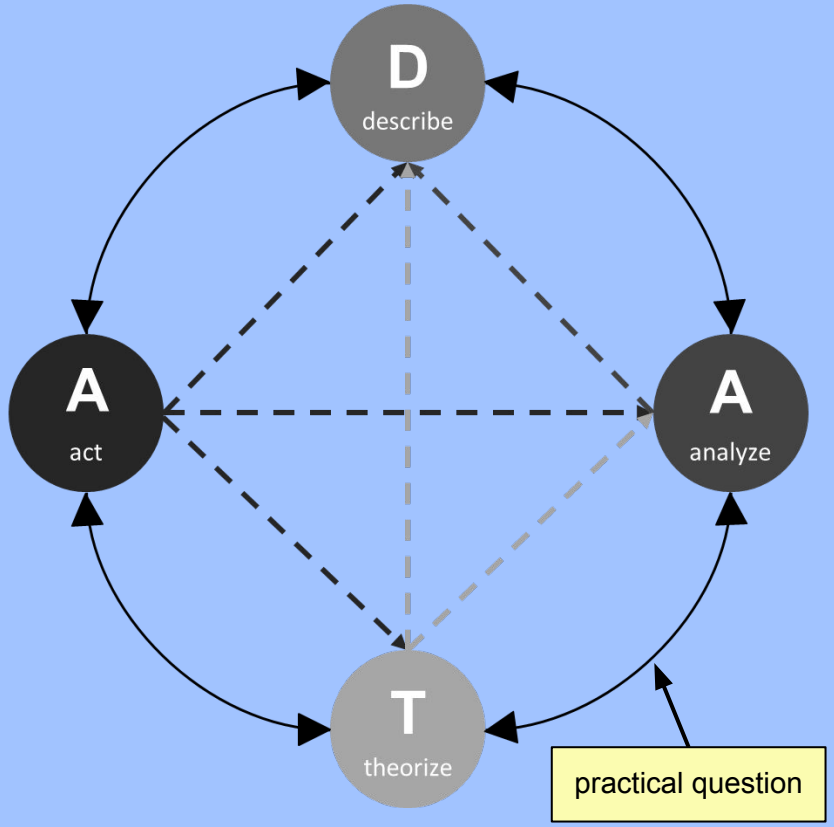
Develop action steps to address problems

Put actions to use and evaluate their effectiveness

DATA-DATA (Peters, 2009) Action Research Process



The first DATA... our focus for this past year.



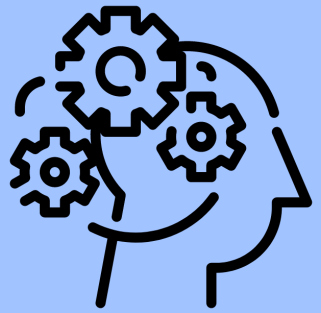
Reflective practice through dialogue...

(D)escribe: What is happening. What are we seeing and experiencing in the evaluation context with regard to DEI efforts.

(A)nalyze: Why are we experiencing our practice in this manner? What assumptions are being made?

(T)heorize: Develop a practical theory. What are the possible ways to move forward? Of the possibilities, what is best in this situation?

(A)ct: What specific steps need to be taken on the basis of our reflection?



Reflective Practice…

Intentional

Requires **curiosity, humility, and authenticity**

Brings things out into the **open**

Bridges theory and practice

For becoming **wiser or better**

Helps **frame our inquiry**

Challenges assumptions, biases, ideologies, beliefs, and behaviors

Engages & values **multiple perspectives**

Accepts **ignorance and mistakes** as a part of practice

Builds **awareness and attentiveness** to context

Is concerned with **taking ACTION**

Seven Aspects of Collaborative Communication

(Seeley, 2023)

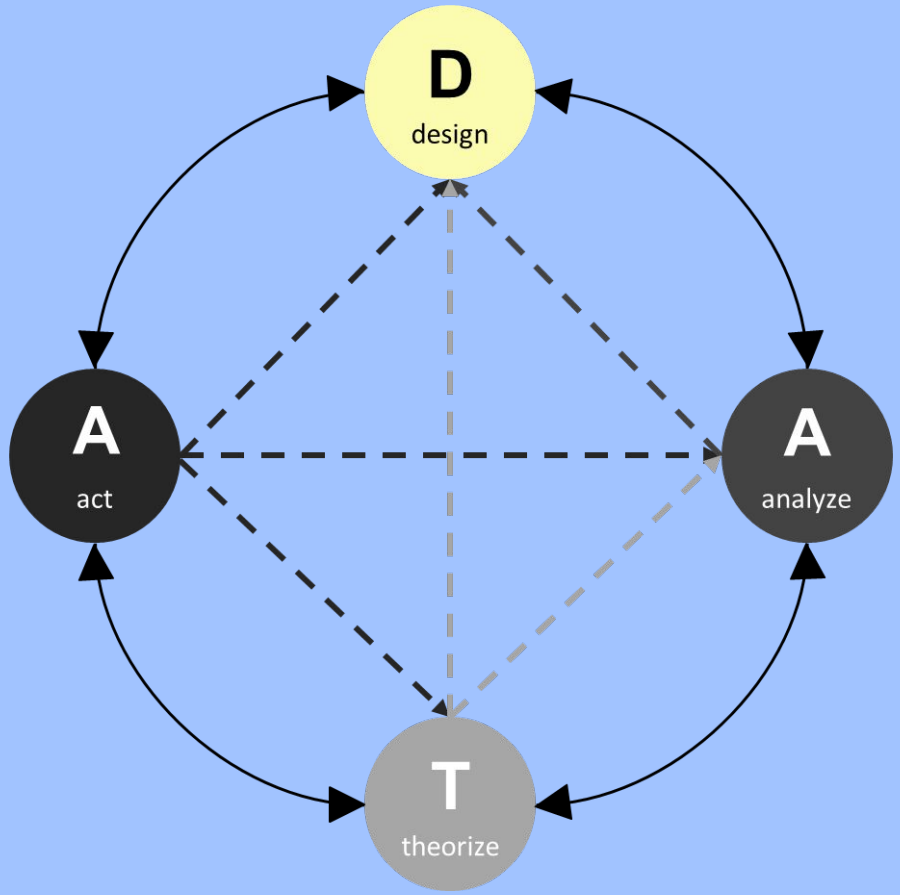
1. **Climate Building**
2. **Questioning**
3. **Listening**
4. **Thinking**
5. **Focusing**
6. **Acting**
7. **Facilitating**

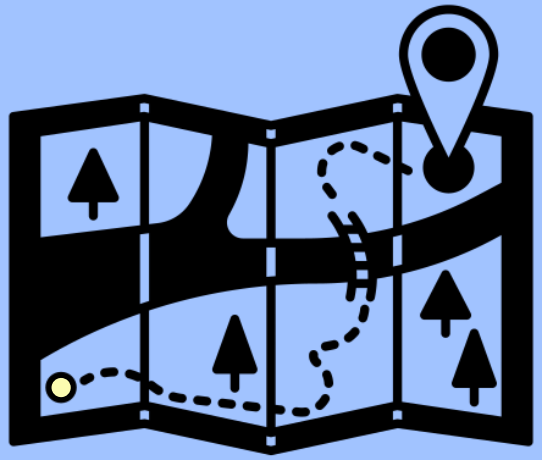
\+ **Development of norms** (e.g., ***Meaningfulness:*** identify and stay connected to the larger purpose and heart-felt intention of our work together & ***Holistic:*** acknowledge the whole person, we are more than our work)

Second DATA...

Action research based on implementation.

Beginning in Spring 2024





Where are we in the process?

We have completed...

5 rounds of project meetings (5x3 cases)	All Evaluators' Meeting (4 evaluators + EvaluATE team)
One round of individual interviews (7 participants)	All PIs meeting (3 PIs + EvaluATE team)

Some Reflections with the Project Case Studies

Share **your experience** being a part of the EvaluATE DEI case studies

How did your thinking about **DEI and reflective practice** change as a result of this process?

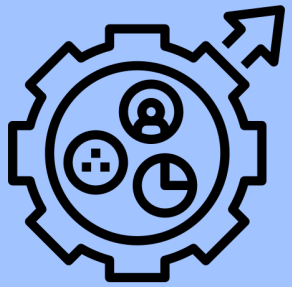
Talk a bit about the DEI evaluation **action plan** you developed as a part of this work.

What **lessons learned or insights** would you share with other evaluators and PIs hoping to engage more thoughtfully with DEI in their work?

MNT-EC

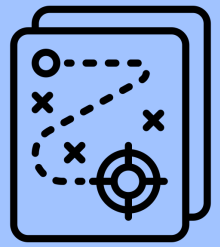
Micro Nano Technology Education Center

Transparency

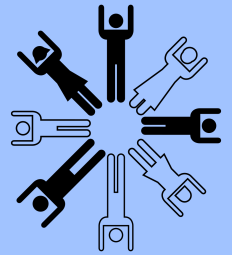


Metrics Matter

Talk About It

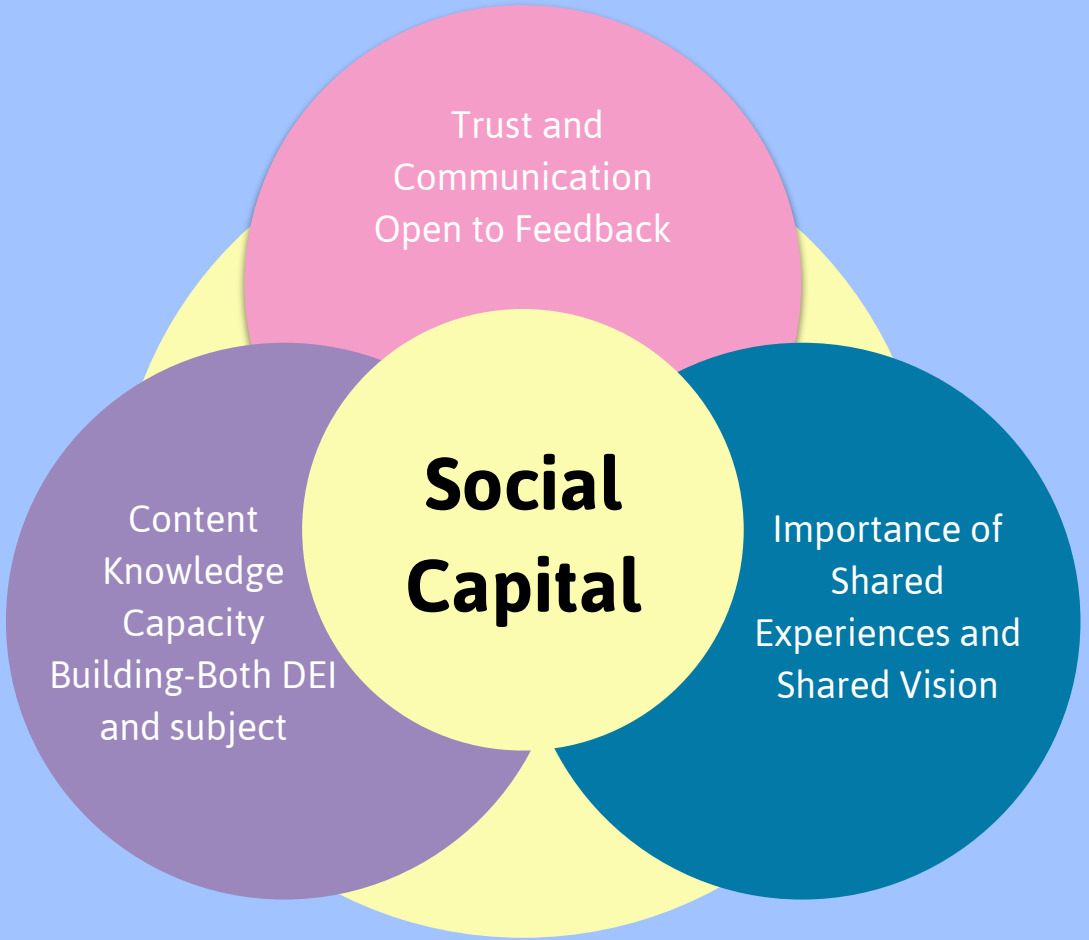


Strategize



Diversity is Excellence

Collaborative Research: Preparing the Workforce for Industry 4.0's Intelligent Industrial Robotics



BIOTEC Pathways: Expanding Pathways from High School into the Biotechnology Workforce

Community Partners
How can we deepen the connections between students, families, educators, to strengthen pathways?

Industry Partners
How can we increase confidence with industry partners to be welcoming people of all abilities?

Institutional Data and Processes
How can we reduce structural overlap and gaps in student data to open up access to information for program improvement, and reduce barriers to information?

Food for Thought and Lessons Learned

Project and evaluation alignment on DEI is important

Having a framework to guide reflection is key

Evaluator as the voice for DEI-related efforts?

Facilitators provide active engagement in creating a culture of care

Professional relationships play an important role in the success of the work

It is important to dedicate efforts toward the reflective process

Thank You!

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Grab a copy of our slide deck!

Check out our EvaluATE Resources!