



## **Data Use for Continuous Improvement Toolkit**

A Guide to Support Data Conversations & Action Plans  
for the Purpose of Continuous Improvement

## About This Guide

Continuous improvement is an ongoing effort to improve products, services, or processes. Teacher Preparation Programs (TPP) are constantly seeking out new opportunities to add value to their processes. Value can be added by identifying what data is being collected, the current practices for using data, the action steps that are needed to improve practices, and what changes should be adopted based on new learning. The purpose of this guide is to support TPPs with tools and resources for engaging in the important work of having intentional conversations about the use of data programs and developing structures for making decisions to promote continuous improvement.

The guide is divided into five sections.

- (1) **Research on Data Use** (*page 3*): This section provides research on the impact of data use and explains the ‘need’ for engaging in the inquiry process as individuals and in small group settings.
- (2) **Framework for Guiding the Data Inquiry Process** (*pages 4-5*): This section illustrates and explains the ongoing four step cycle that support program conversations and designs.
- (3) **Process Protocol Explanations/Descriptions** (*pages 6-16*): This section describes each process protocol in detail by explaining what specific actions should take place during each step.
- (4) **Process Protocol Agendas & Presentations** (*page 17*): This section provides agenda and presentation templates for each process protocol.
- (5) **Example Agendas and Action Plans** (*page 18*): This section provides example process protocol agenda and action plans that were developed during the inquiry process.

The guide provides resources for engaging in intentional conversations with faculty members about data use for continuous improvement. The resources can be utilized to ‘dig deeper’ into the data, be reflective about current practices, and makes decisions for improving those practices. It purposefully focuses on four data process protocols:

**Data Informed PLC  
Collaboration  
Process**

**Examining Data PLC  
Collaboration Process**

**Consultancy  
Protocol PLC  
Collaboration  
Process**

**Self-Study PLC  
Collaboration  
Process**

Organizational leaders may use the structures and resources to begin the process of engaging in data use conversations in small group or individual settings. It is important to note this guide is not intended to be comprehensive of *all* possible actions, considerations, or anticipations leaders may need to take while engaging and supporting faculty members with analyzing their data for continuous improvement. It is intended to support Teacher Preparation Programs with improving organizational systems to positively impact the learning experiences of Teacher Candidates and strengthen university and school district partnerships.

# Section 1

## Research on Data Use

### Summary Table & Article Links

<b>A Collaborative Learning Network Approach to Improvement: The CUSP Learning Network</b>	This article by Weaver and colleagues shares the work of the Comprehensive Unit-based Safety Program (CUSP) and the process they engaged in to establish significant improvements in patient safety and quality through the use of collaborative methods to facilitate peer-to-peer learning and coaching.	<ul style="list-style-type: none"><li>• <a href="#">Article Link</a></li></ul>
<b>Mediating Systemic Change Through Socio-cultural Methods in Educational Systems in the United States</b>	This article by Kozleski and Artiles look at the challenges of data inquiry and interpretation within schools systems in the United States. Technical assistance allows individuals to engage in the process of changing the outcomes of their practice and shifting the approach to their future work and practices.	<ul style="list-style-type: none"><li>• <a href="#">Article Link</a></li></ul>
<b>Organizational Learning and Program Renewal in Teacher Education: A Socio-cultural Theory of Learning, Innovation and Change</b>	This article by Peck and colleagues looks at how the contemporary socio-cultural learning theory may be utilized as a process for engaging in the learning and change process within teacher education programs. The theoretical framework supports the process of interpreting complex social pressures underlying organizational renewal, innovation, and change.	<ul style="list-style-type: none"><li>• <a href="#">Article Link</a></li></ul>

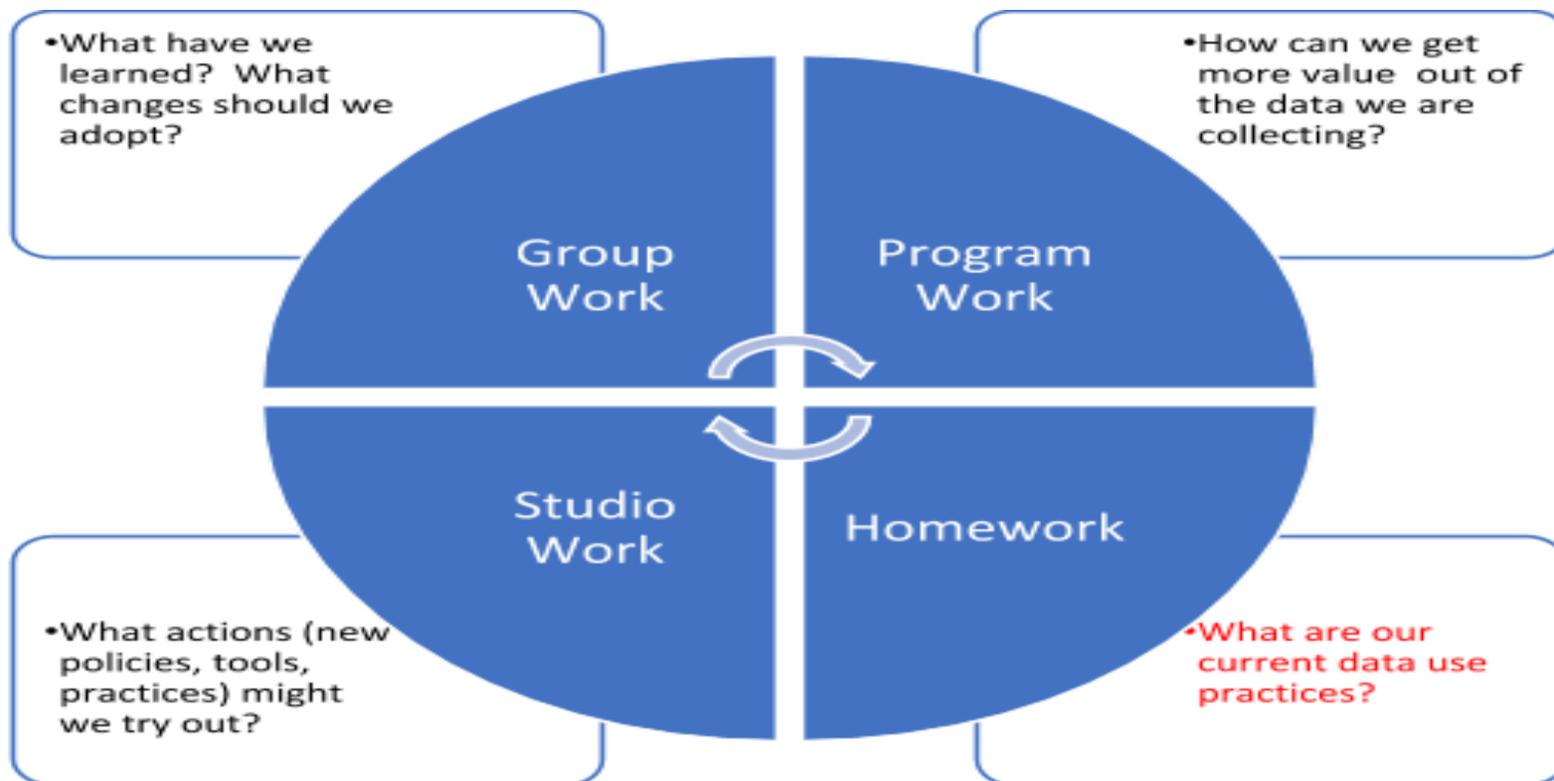
## Section 2

# Framework for Guiding Data Inquiry Process

### Framework for Guiding the Data Inquiry Process

*C.A. Peck et al. / Educational Research Review 4 (2009) 16-25*

#### Program Conversations and Decisions



#### Individual and small group learning

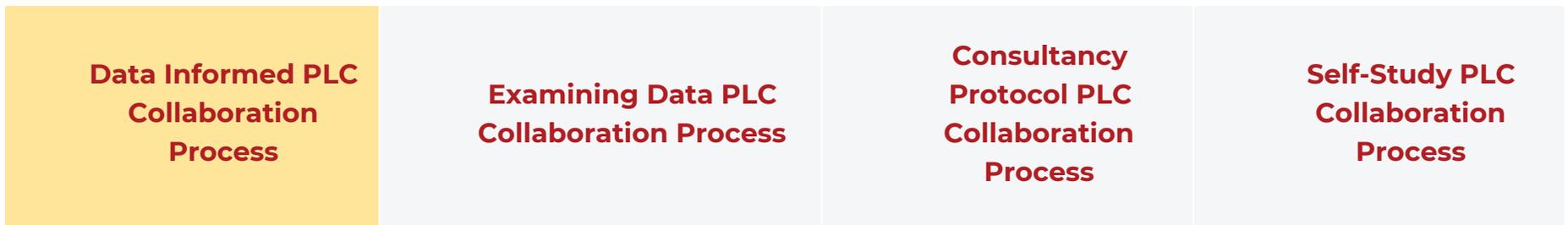
## Explanation of Framework for Guiding the Data Inquiry Process (Cyclical Process)

<b>Quadrant I</b>	<b>Program Work</b>	<p><b>Guiding Question: How can we get more value out of the data we are collecting?</b></p> <p>This first stage of the inquiry process is '<u>public</u>'. It is intended to identify the data sources that Teacher Preparation Programs have readily available to them, use when making programmatic decisions, and may need access to for analysis purposes.</p>
<b>Quadrant II</b>	<b>Homework</b>	<p><b>Guiding Question: What are our current data use practices?</b></p> <p>The second stage of the inquiry process is '<u>collective</u>'. During this stage of the cyclical process, faculty are engaging in small group conversations about how data is currently analyzed and utilized when making programmatic decisions.</p>
<b>Quadrant III</b>	<b>Studio Work</b>	<p><b>Guiding Question: What actions (new policies, tools, practices) might we try out?</b></p> <p>The third stage of the inquiry process is '<u>private</u>'. Individuals are engaged in the self-reflection process and are trying out new actions. Each person is beginning to reinterpret their current concepts and practices and identify new ideas and practices to support continuous improvement.</p>
<b>Quadrant IV</b>	<b>Group Work</b>	<p><b>Guiding Question: What have we learned? What changes should we adopt?</b></p> <p>The fourth stage of the inquiry process is '<u>individual</u>'. At this point in the process, the small group comes back together to share their new ideas and practices and shift from private to public. They are collectively sharing their new learnings and processes for using data to make programmatic changes.</p>

## Section 3

# Process Protocol Explanations/Descriptions

The four data use collaborative processes referred to in the introduction of this guide are aligned to the Framework for Guiding the Data Inquiry Process. Each step of the process protocols are intended to engage faculty members in program work, homework, studio work, and group work. Below is an overview of each data use collaborative process and a detailed explanation of each step.



### Data Informed PLC Collaborative Process

**This protocol is used for engaging a group in a discussion about data, what the data reveals as needs, action steps to address needs, and how to apply the new learning in additional areas of the program. The process is intended to be completed in a one meeting setting. At least one hour should be designated for completing the protocol.**

Materials Needed: Copies of data for team members, highlighters  
Additional Suggested Materials: Agenda, Slide Deck

# Overview of the Steps

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Purpose/ Outcome(s)	Review Data/ Feedback	Develop New Learning	Process New Learning	Support Tool	Next Steps	Review & Assess Process

## Explanation of Steps

<p><b>Step 1: Purpose/Outcome</b></p>	<p>The facilitator of the discussion should begin the meeting with a review of the previous meeting objectives and outcomes. This opportunity to revisit the prior meeting sets the tone and allows participants to understand the purpose of the current meeting and how it aligns to the topics addressed in the past. This step may be illustrated with a slide presentation to highlight the important points/ideas from the previous meeting.</p>	<ul style="list-style-type: none"> <li>• <b>5 minutes</b></li> </ul>
<p><b>Step 2: Review Data/Feedback</b></p>	<p>The facilitator/faculty member will share pertinent data related to programmatic implementation. This data will drive the conversation about what the data reveals about the systems/structures in place within the program. Based on the needs of participants, there may be time set aside within this step for individual review of the data before the facilitator/faculty member shares the data whole group.</p>	<ul style="list-style-type: none"> <li>• <b>15 minutes</b></li> </ul>
<p><b>Step 3: Develop New Learning</b></p>	<p>Participants will engage in open dialogue about what new learning was gained from analysis of the data. The following are examples of questions that may guide the 'new learning' discussion.</p> <ul style="list-style-type: none"> <li>• What resonated with you in regards to the data?</li> <li>• What aspects of the data reinforced something you may have already been aware of?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>10 minutes</b></li> </ul>

	<ul style="list-style-type: none"> <li>• What aspects of the data surprised you?</li> </ul> <p>Your guiding questions may be even more specific based on the specific data shared.</p>	
<b>Step 4: Process New Learning</b>	<p>Participants will process their ‘new learning’ in regards to personal context relevance and self-evaluation of current program status. This may be an opportunity for participants to share their personal connections as they process the ‘new learning’.</p>	<ul style="list-style-type: none"> <li>• <b>10 minutes</b></li> </ul>
<b>Step 5: Support Tool</b>	<p>Based on the data presented (step 2) and new learning gained (steps 3 &amp; 4), participants will collectively examine possible tools (structures/processes/resources) that will support the organization’s efforts towards continuous improvement. Participants will have an opportunity to share their new insights.</p>	<ul style="list-style-type: none"> <li>• <b>10 minutes</b></li> </ul>
<b>Step 6: Next Steps</b>	<p>The facilitator will guide the participants to identify possible next steps for continuous improvement. Participants should be encouraged to build upon their new learning and apply the new learning and or structures, processes, and resources in their own setting.</p>	<ul style="list-style-type: none"> <li>• <b>5 minutes</b></li> </ul>
<b>Step 7: Review and Assess Process</b>	<p>During the final step of the process, participants will review and assess the process and its possible application for additional settings within the program and/or organization.</p>	<ul style="list-style-type: none"> <li>• <b>5 minutes</b></li> </ul>

\* The times for each step of the protocol are based on a one hour meeting and are not approximate. The times for each step may change based on the time allocated for this process and the specific needs of your organization.

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Process

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Collaboration Process

Consultancy  
Protocol PLC  
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Self-Study PLC  
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Process

## Examining Data PLC Collaborative Process

This protocol is used for guiding a group through the analysis of data to identify strengths and problems of practice. At least one hour should be designated for completing the protocol.

Materials Needed: Copies of data for team members, highlighters  
Additional Suggested Materials: Agenda, Slide Deck

**Getting Started:** Overview of Data - The facilitator reminds the group of the norms, assigns roles (recorder, time-keeper) and explains the protocol. The facilitator gives a brief description of the particular data to be discussed and answers clarifying questions as necessary. (3 minutes)

## Overview of the Steps

Step 1

Review Data

Step 2

What does the data tell us?

Step 3

Celebrations

Step 4

Problems of Practice

Step 5

Key Conclusions

## Explanation of Steps

<p><b>Step 1: Review Data</b></p>	<p><b>Guiding Question: What parts of this data catch your attention?</b></p> <p>The facilitator will ask the participants to just state the facts.</p>	<ul style="list-style-type: none"> <li>• <b>8 minutes</b> 2 minutes to silently write individual observations, 6 minutes discussing as a group</li> </ul>
<p><b>Step 2: Review Data/Feedback</b></p>	<p><b>Guiding Questions: What does the data tell us? What does the data NOT tell us?</b></p> <p>The facilitator will ask the participants to make inferences about the data. The facilitator also encourages team members to support their statements with evidence from the data.</p>	<ul style="list-style-type: none"> <li>• <b>10 minutes</b> 3 minutes to silently make notes, 7 minutes to discuss as a group</li> </ul>
<p><b>Step 3: Develop New Learning</b></p>	<p><b>Guiding Question: What good news is there to celebrate?</b></p> <p>The facilitator asks the group to look for indications of success in the data.</p>	<ul style="list-style-type: none"> <li>• <b>5 minutes</b> to identify strengths</li> </ul>
<p><b>Step 4: Process New Learning</b></p>	<p><b>Guiding Question: What are the problems of practice suggested by the data?</b></p> <p>The facilitator helps the group narrow the focus of the problems of practice.</p>	<ul style="list-style-type: none"> <li>• <b>10 minutes</b> 3 minutes to silently write individual ideas for practice, 7 minutes for group discussion</li> </ul>

**Step 5:  
Support Tool**

**Guiding Questions: What are our key conclusions?  
What recommendations does the team have for  
addressing the problems of practice?**

This is the action phase of the data analysis. The group will design an action plan for next steps to be recorded in the minutes.

- **10 minutes**

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## Consultancy Protocol PLC Collaboration Process

A Consultancy is a structured process for helping an individual or a team think more expansively about a particular, concrete dilemma. This protocol may be used after the Data Informed PLC Collaborative Process to dig deeper into specific/individual data points.

### Time

- Approximately 50 minutes per dilemma

### Roles

- Presenter (whose work is being discussed by the group)
- Facilitator (who sometimes participates, depending on the size of the group)

## Overview of the Steps

<u>Step 1</u>	<u>Step 2</u>	<u>Step 3</u>	Step 4	Step 5	Step 6
Overview of Dilemma	Clarifying Questions	Probing Questions	Group Talk	Presenter Reflection	Group's Observations

## Explanation of Steps

<p><b>Step 1: Overview of Dilemma</b></p>	<p>The presenter gives an <b>overview</b> of the <b>dilemma</b> with which s/he is struggling, and frames a question for the <u>Consultancy group to consider</u>. The framing of this question, as well as the quality of the presenter's reflection on the dilemma being discussed, are key features of this protocol. If the presenter has brought student work, educator work, or other "artifacts," there is a pause here to silently examine the work/documents.</p>	<ul style="list-style-type: none"><li>• <b>5-10 minutes</b></li></ul>
<p><b>Step 2: Clarifying Questions</b></p>	<p>The Consultancy group asks clarifying questions of the presenter - that is, questions that have brief factual answers.</p>	<ul style="list-style-type: none"><li>• <b>5 minutes</b></li></ul>
<p><b>Step 3: Probing Questions</b></p>	<p>The <b>group asks probing questions</b> of the presenter. These questions should be worded so that they help the presenter clarify and expand his/her thinking about the dilemma presented to the Consultancy group.</p> <p>The goal here is for the presenter to learn more about the question s/he framed or to do some analysis of the dilemma presented. The presenter may respond to the group's questions, but there is no discussion by the Consultancy group of the presenter's responses.</p> <p>At the end of the ten minutes, the facilitator asks the presenter to re-state his/her question for the group.</p>	<ul style="list-style-type: none"><li>• <b>10 minutes</b></li></ul>

<p><b>Step 4: Group Talk</b></p>	<p>The group talks with each other about the dilemma presented.</p> <p><b>Possible questions to frame the discussion:</b>          What did we hear?          What didn't we hear that they think might be relevant?          What assumptions seem to be operating?          What questions does the dilemma raise for us?          What do we think about the dilemma?          What might we do or try if faced with a similar dilemma? What have we done in similar situations?</p>	<ul style="list-style-type: none"> <li>● <b>15 minutes</b></li> </ul>
<p><b>Step 5: Presenter Reflection</b></p>	<p>The presenter reflects on what s/he heard and on what s/he is now thinking, sharing with the group anything that particularly resonated for him or her during any part of the Consultancy.</p>	<ul style="list-style-type: none"> <li>● <b>5 minutes</b></li> </ul>
<p><b>Step 6: Group's Observations</b></p>	<p>The facilitator leads a brief conversation about the group's observation of the Consultancy process.</p>	<ul style="list-style-type: none"> <li>● <b>5 minutes</b></li> </ul>

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## Self-Study PLC Collaborative Process

A Self-Study is an opportunity for an individual to study or examine an aspect of their work independently. This protocol is used for individuals that are engaged in the self-study process and is interested in sharing their findings with colleagues in order to gain more insight about their possible next steps.

Suggested Materials Needed: Handout with explanation of study and findings

Time allocations for this process are suggestions. The presenter should consider how much time it will take to adequately address each step of the process.

## Overview of the Steps

**Step 1**

Process, Purpose,  
Procedure

**Step 2**

Findings

**Step 3**

Moving Forward

**Step 4**

Small Group Presentations

**Step 5**

Commitment

## Explanation of Steps

<p><b>Step 1: Process, Purpose, Procedure</b></p>	<p>Presenter shares a brief explanation of Self-Study.</p>	<ul style="list-style-type: none"> <li>● <b>10 minutes</b></li> </ul>
<p><b>Step 2: Findings</b></p>	<p>Presenter places emphasis on the findings that are cause for celebration and areas for improvement.</p>	<ul style="list-style-type: none"> <li>● <b>15 minutes</b></li> </ul>
<p><b>Step 3: Moving Forward</b></p>	<p><b>Guiding Question: “In light of our findings and ongoing nature of self-study of data use practices, what should our program focus on as we move forward?”</b></p> <p>Presenter will provide the “gist” or additional pertinent information during small group discussion if needed.</p>	<ul style="list-style-type: none"> <li>● <b>15 minutes</b></li> </ul>
<p><b>Step 4: Small Group Presentations</b></p>	<p>Small groups present their big ideas based on the presenter’s Self-Study findings and possible next steps.</p>	<ul style="list-style-type: none"> <li>● <b>10 minutes</b></li> </ul>
<p><b>Step 5: Commitment</b></p>	<p>Based on small groups presentations, leadership is encouraged to consider the generated ideas from discussion and select ideas to work on during upcoming academic year.</p>	<ul style="list-style-type: none"> <li>● <b>10 minutes</b></li> </ul>

# Section 4

## Process Protocols Agendas & Presentations

### Agenda & Presentation Links

The links provided under each process protocol will give you access to the agenda and presentation templates. Feel free to use your own logos on the templates.

<b>Data Informed PLC Collaboration Process</b>	<b>Examining Data PLC Collaboration Process</b>	<b>Consultancy Protocol PLC Collaboration Process</b>	<b>Self-Study PLC Collaboration Process</b>
<a href="#">Agenda</a>	<a href="#">Agenda</a>	<a href="#">Agenda</a>	<a href="#">Agenda</a>
<a href="#">Presentation</a>	<a href="#">Presentation</a>	<a href="#">Presentation</a>	<a href="#">Presentation</a>

# Section 5

## Example Agenda & Action Plan

<a href="#">Example Agenda</a>	Example Action Plan
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