

Using Data Required in The Pedagogical Supervision Act

September 22-24, 2010



Agenda

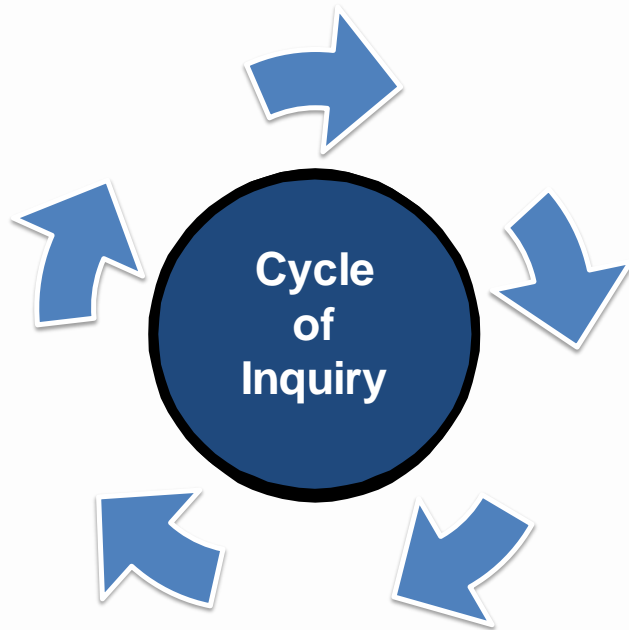
- Introduction
- The Cycle of Inquiry
 - Asking questions
 - Collecting information
 - Making meaning
 - Taking action
 - Measuring results
- Wrapping Up



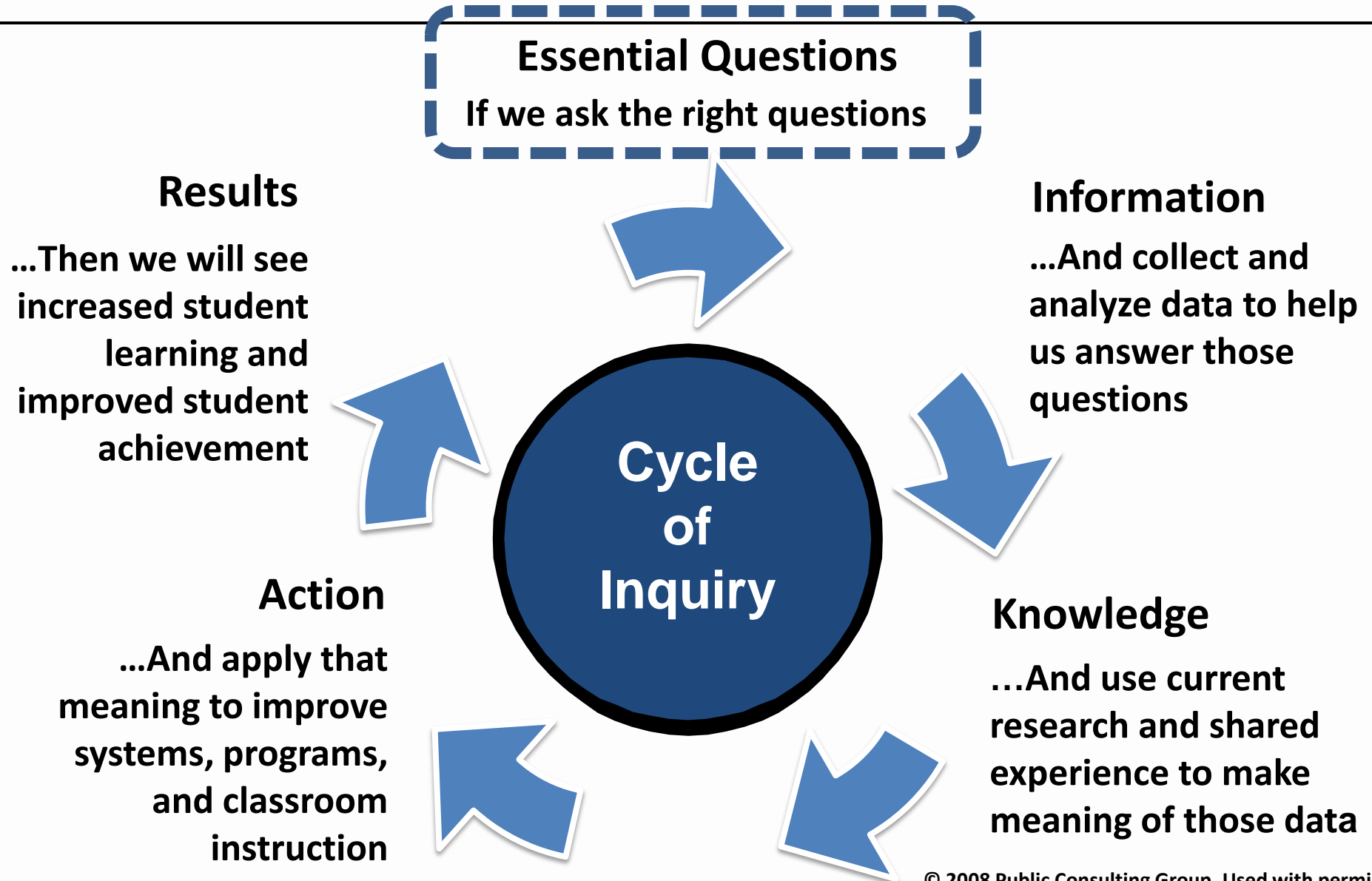
Introduction

2 Key Questions:

1. How can school leaders use data to help improve their schools?
2. How can the Pedagogical Supervision Act contribute to this process?



The Data-driven inquiry and action cycle



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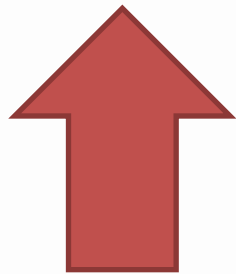
Three types of questions



- How did our students do in...?
- To what extent do our teachers...?
- To what extent do our parents...?

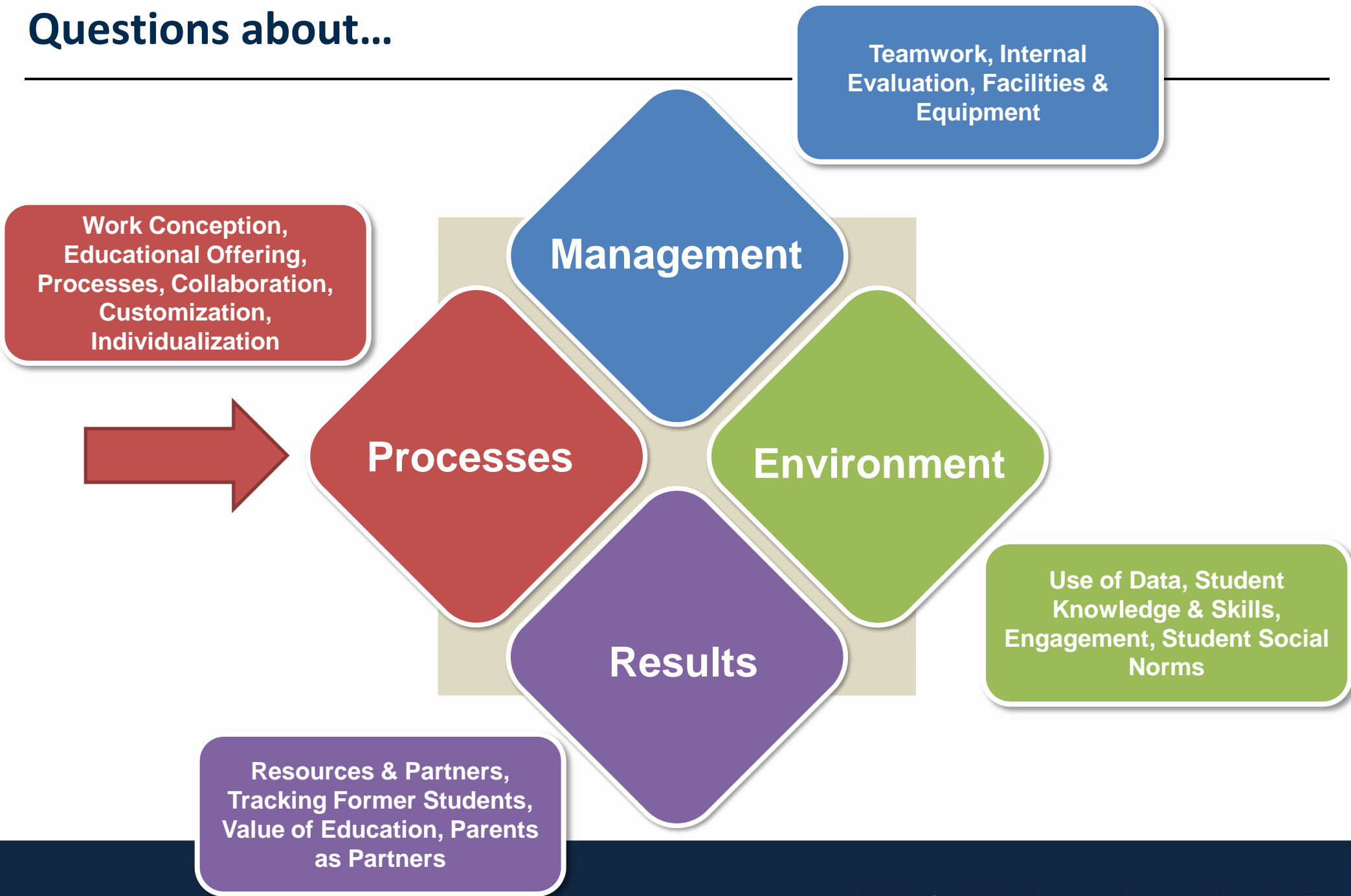
- Why did our students...?
- Why aren't our teachers...?
- Why aren't our parents...?

- How do we fix...?
- What do we do about...?
- Do we need...?



Beginning with (and sticking to!) questions of discovery at the beginning of the cycle is critical

Questions about...



Example

Requirement 2.4: Educational processes are the effect of teachers' cooperation

Requirements:

- Teachers cooperate in developing and analyzing educational processes.
- Teachers support one another in organizing and implementing educational processes.
- Changes concerning educational processes are introduced in result of mutual decisions taken by teachers.

Basic questions...

- To what extent do our teachers cooperate in developing and analyzing educational processes?
- To what extent do teachers support one another in organizing and implementing educational processes?
- To what extent are changes concerning educational processes introduced as a result of mutual decisions made by teachers?



What can you measure that will provide data to answer these questions?

Good questions

The types of questions you ask about your processes determines the extent of data you can collect to answer them and the quality of the actions you can take to address them.

- Good questions are:***
- ✓ **Specific**
 - ✓ **Researchable**
 - ✓ **Connected to a theory of action**

Deeper (and measurable!) questions...

- To what extent does the master schedule show that time is set aside for co-planning?
- To what extent do teachers perceive that their voices are heard in the decision process?
- To what extent do meeting minutes indicate that collaborative decision-making is occurring?
- How often are joint undertakings or events taking place regularly.



Deeper (and measurable!) questions...

- Are assessments standardized across classrooms?
- To what extent do teachers have a shared understanding of what high quality student work (e.g. writing) is and have specific examples of student work to back it up?
- Are similar learning activities (what students are doing) occurring in each classroom?
- Does student work show the curriculum has been integrated across classrooms?





Protocol #1: Question Formulation



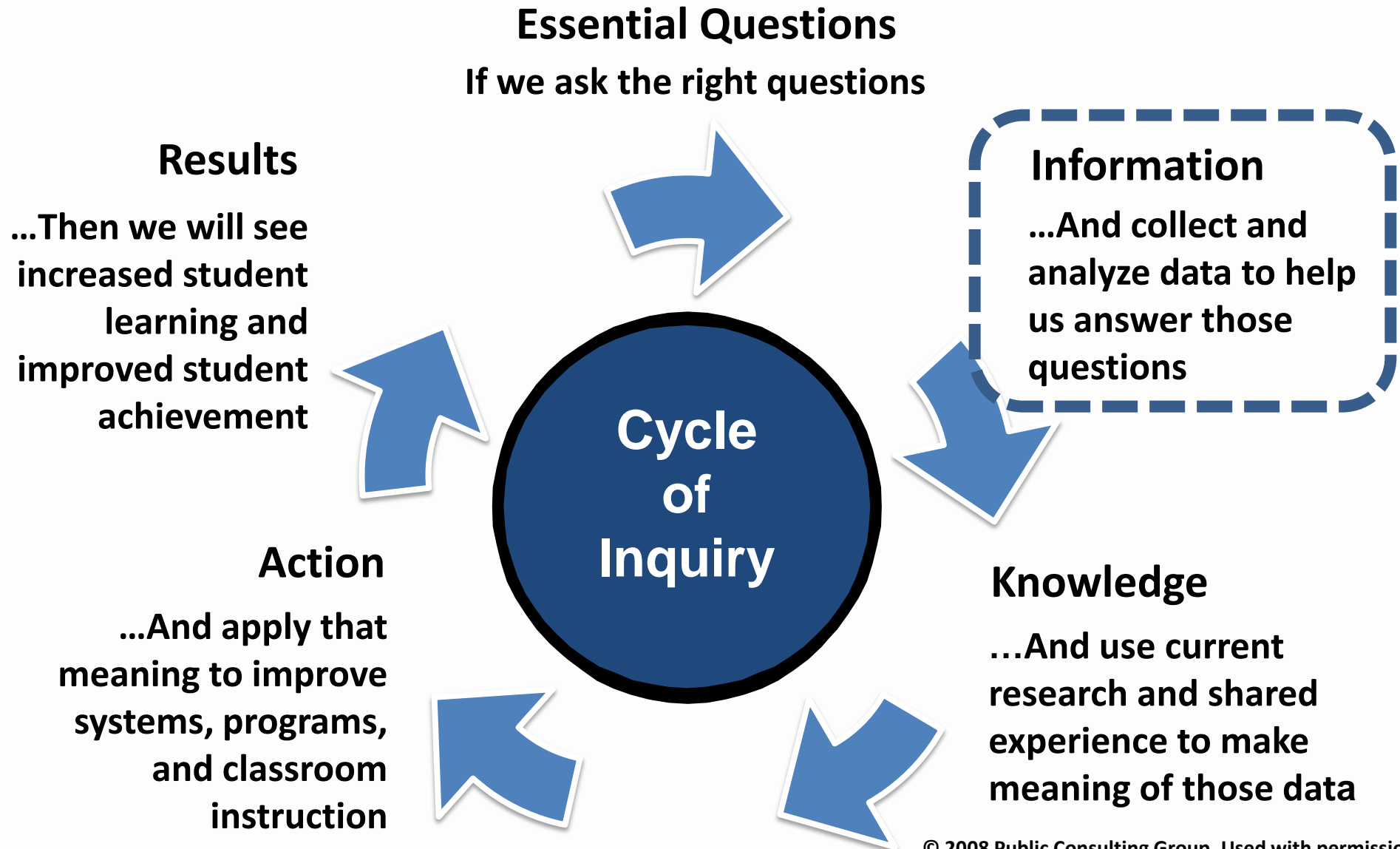
QUESTION FORMULATION PROTOCOL

Purpose	To formulate a focusing question derived from an issue of importance to your school or district.
Description	This protocol will help a group collaboratively develop, organize, and prioritize questions to structure inquiry.
Time	About 30 minutes.

Directions

1. Identify an issue in your district that you as a District Data Team wish to address. Write the issue on the top of a piece of chart paper. It can be formulated as a statement or question. Your issue/question should be related to student outcomes.
5 minutes
2. As a Team, brainstorm questions that stem from the original question/statement. Write the questions as stated on the chart paper. All items must be phrased as questions. Your questions should be related to student outcomes.
15 minutes

The Data-driven inquiry and action cycle



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What kinds of data?

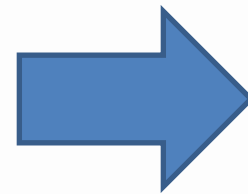
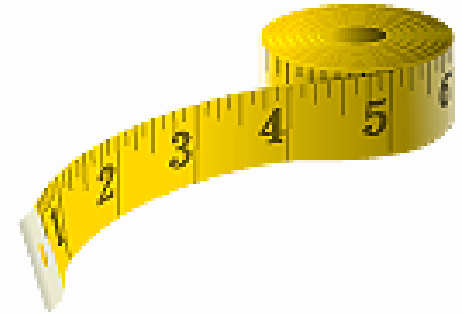
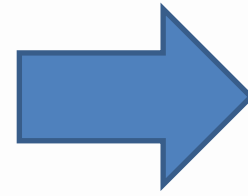


- **Attitudes and perceptions** through surveys, interviews, and focus groups
- **The occurrence of certain activities** through walkthroughs and structured observation
- **The presence of key artifacts** through collection of materials and work samples
- **Improved student outcomes** through assessments, quizzes, attendance, and behavior data

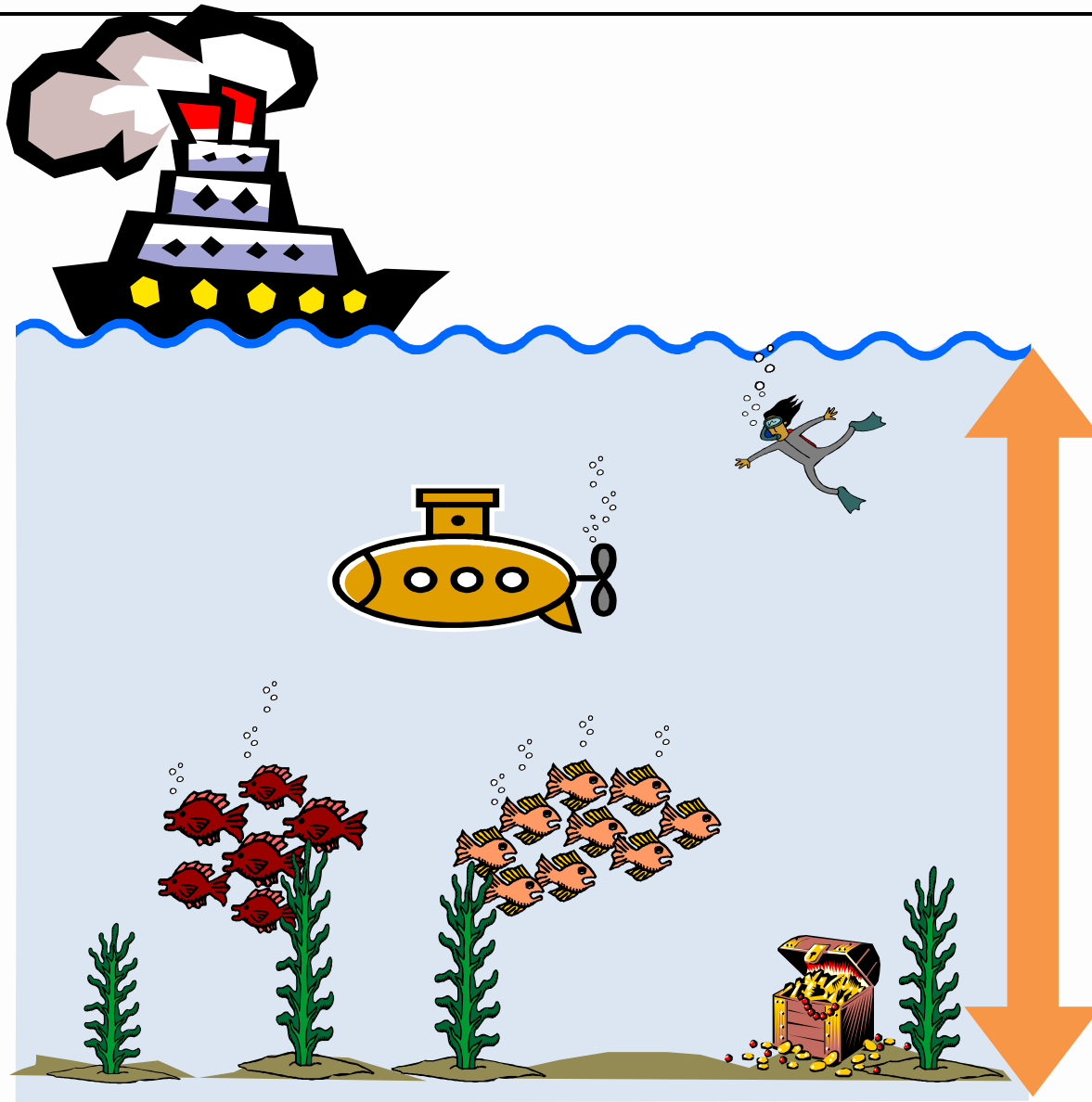
2.4 Educational processes are the effect of teachers' cooperation

What kinds of data?

- Some data can be measured:
 - % of time set aside for co-planning
 - Level of agreement among teachers that their voices are heard in the decision-making process
 - Level of agreement that students perceive a unified approach and vision in the school
- Some data need to be examined:
 - Extent of common assessments
 - Meeting minutes
 - High quality student work samples
 - Classroom activities



Data analysis: How deep do you go?



Aggregated Results

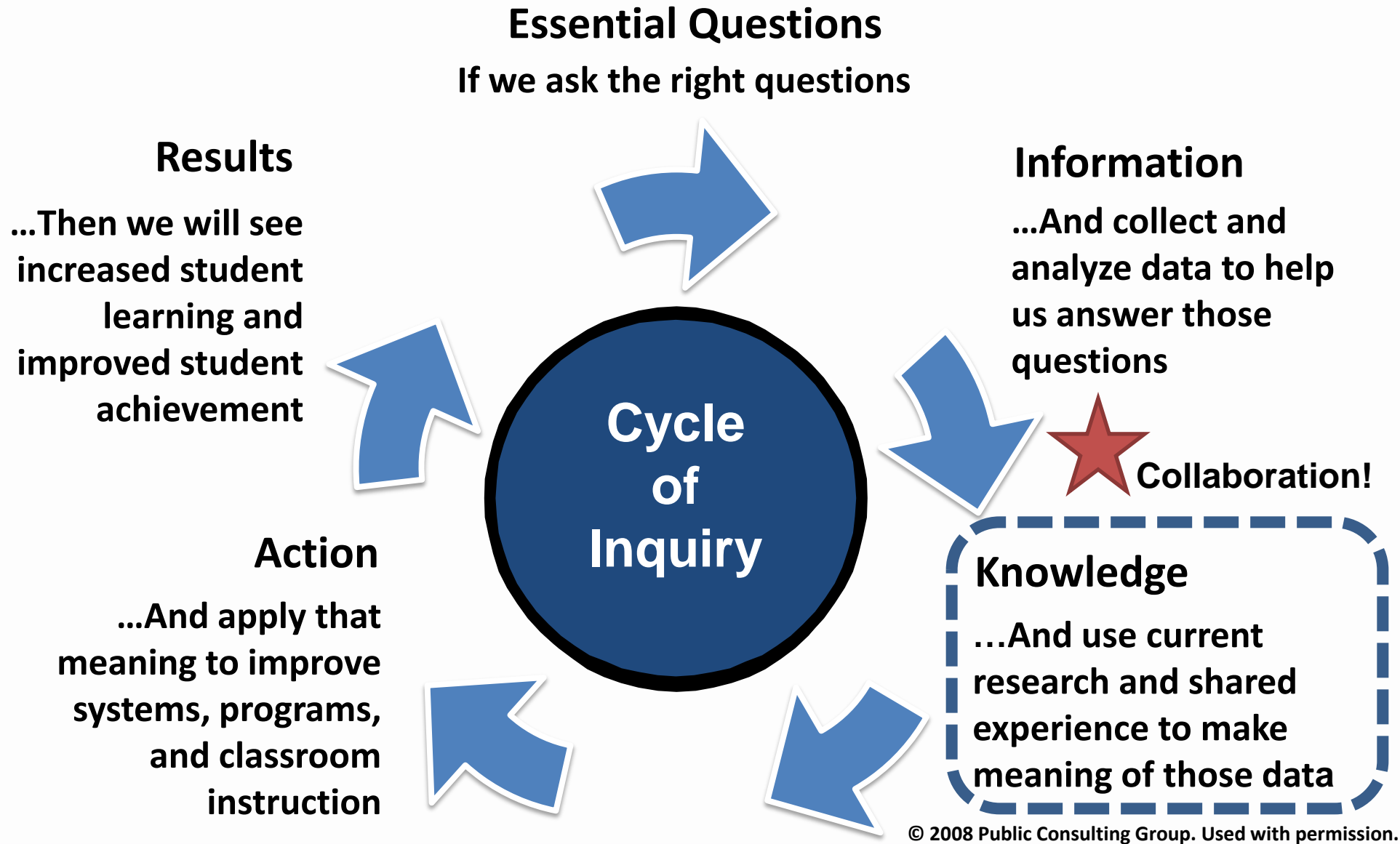
Aggregated Results Over Time

Disaggregated Results

Multiple Data Sources

Individual Student Results

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Three types of questions

Discovery

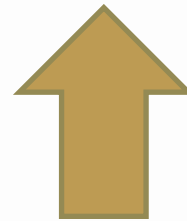
- How did our students do in...?
- To what extent do our teachers...?
- To what extent do our parents...?

Diagnosis

- Why did our students...?
- Why aren't our teachers...?
- Why aren't our parents...?

Action

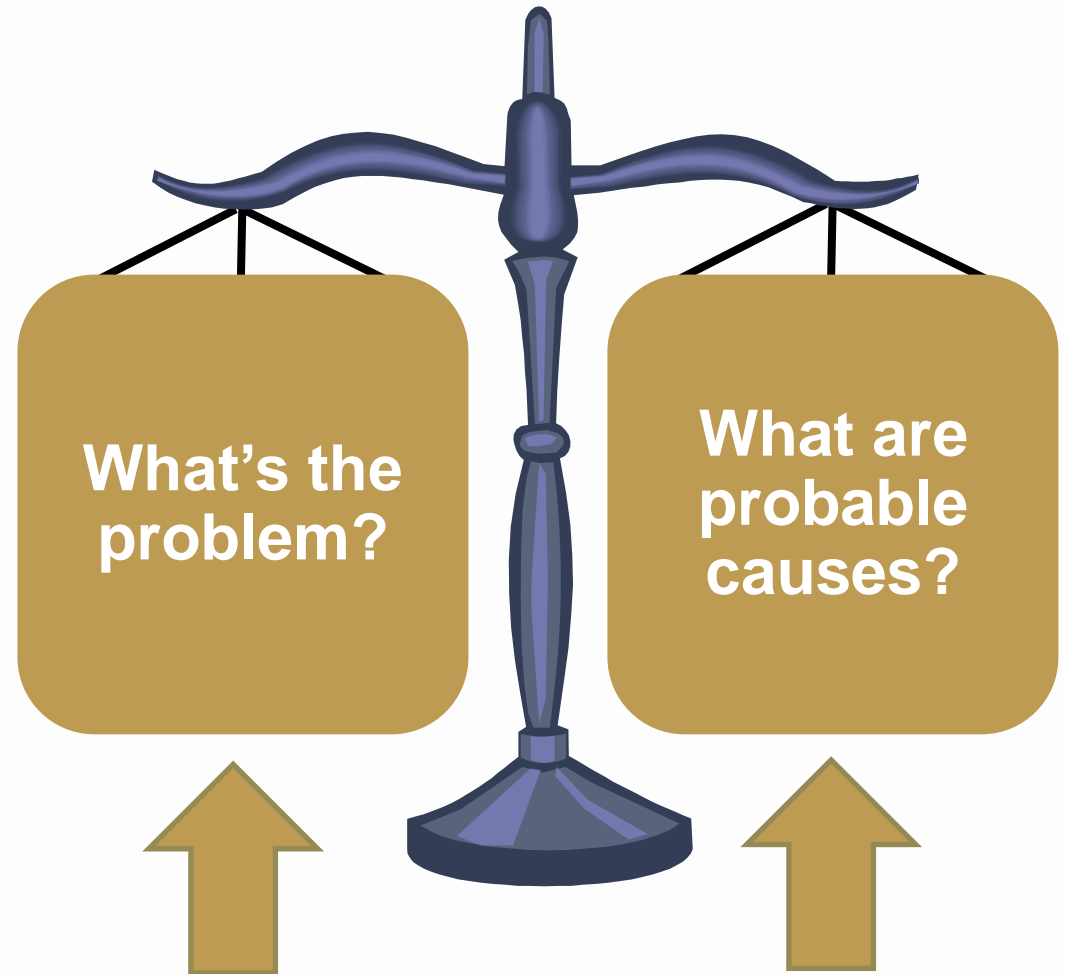
- How do we fix...?
- What do we do about...?
- Do we need...?



**When you collect enough information (through Discovery questions),
then you can move to Diagnostic questions**

2 steps

- Step 1: What is the problem?
 - What's wrong?
- Step 2: What are the probable causes?
 - Why is this happening?
 - What's at the root?
- You must give equal weight to each step!

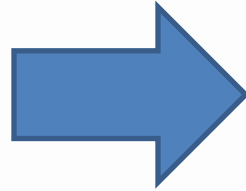


What kinds of data?

2.4 Educational processes are the effect of teachers' cooperation

To what extent do teachers have a shared understanding of what high quality student work (e.g. writing) is and have specific examples of student work to back it up?

 **Collaboration!**



- What we found out during data collection:
 - A review of meeting minutes and a teacher survey found that student work is not discussed during team meetings.
 - A comparison of exemplary student work submitted by each teacher revealed a large disparity in quality of work.

Is this a problem?

Is this a problem?

2.4 Educational processes are the effect of teachers' cooperation

To what extent do teachers have a shared understanding of what high quality student work (e.g. writing) is and have specific examples of student work to back it up?

Research says:

Developing a shared understanding of high quality student work insures that students are getting similar (and high quality) instruction and assessment across classrooms and decreases within-school inequities.

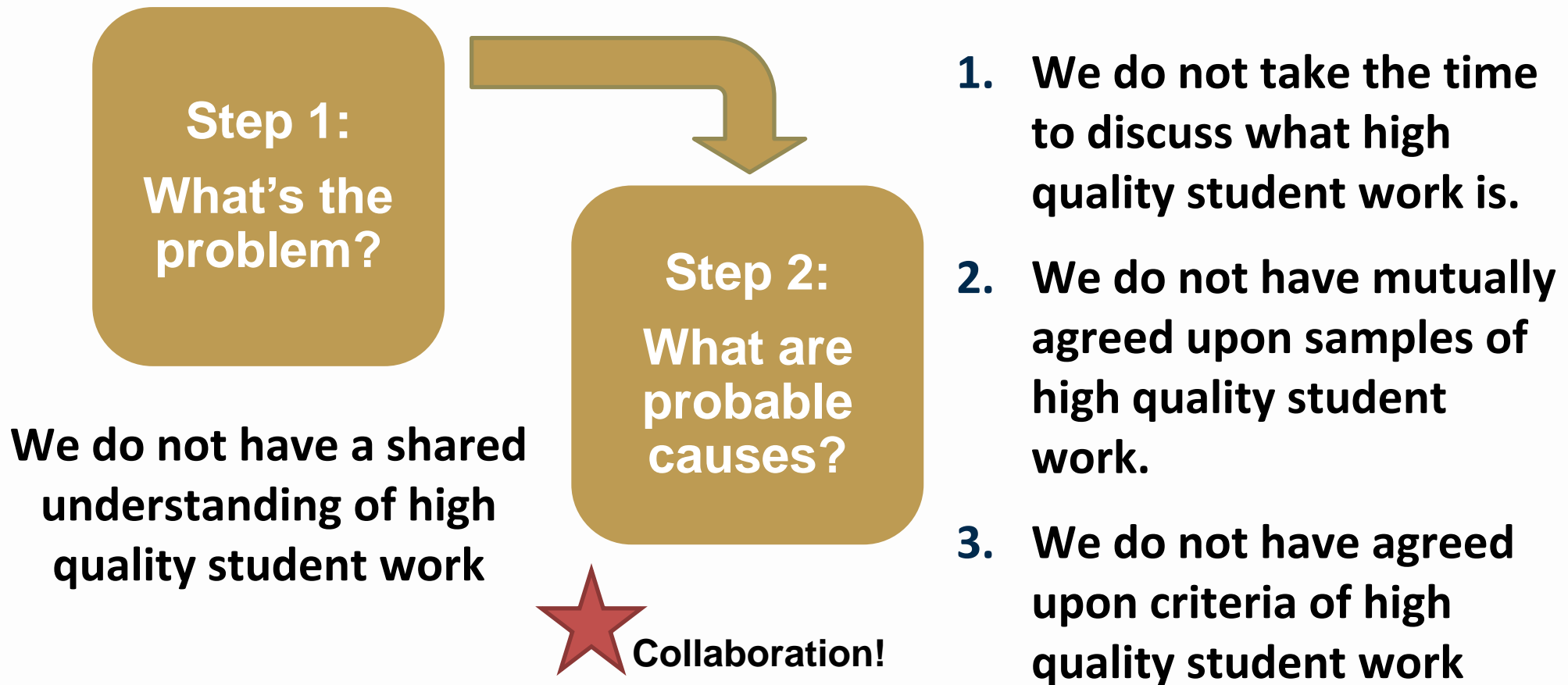
Evidence from Finland, where achievement and equity are high, documents the importance of a set of interlocking and relatively consistent practices within and between schools (**Grubb, Marit Jahr, Neumuller & Field, 2005**).

A study of improving schools in Washington state found that "...Improving schools did more than plan: they implemented, every day and in every classroom, and they made sure that teachers at every grade level were coordinating their efforts." (**Lake, Hill, O'Toole, & Celio, 1999**).

It is important for middle schools and high schools to work together on the transition process: in particular, teachers should work together to insure that curriculum and expectations are aligned between the high school and sending middle schools (**Dynarski, Clarke, Cobb, Finn, Rumberger, & Smink, 2008**).

Defining the problem: 2 steps

To what extent do teachers have a shared understanding of what high quality student work (e.g. writing) is and have specific examples of student work to back it up?



How do you know?

- When do you know you've identified the right problem?
 - ✓ Have you reached consensus on the problem?
 - ✓ Have you consulted the research based best practice literature on ways to address this problem?
 - ✓ Have you reached consensus on the practices that should be in place in your school to address the problem?
 - ✓ Have you observed and analyzed practices in your school to determine if they are consistent with best practice research?
 - ✓ Have you identified colleagues who have developed best practices to address this problem effectively?
 - ✓ If we effectively address our problem, do we believe that we will see an improvement in student outcomes?

Which of these do you think is the hardest to do?



Protocol #2: Why, Why, Why



WHY, WHY, WHY?

Purpose	Determine a root cause for a problem.
Description	A Team brainstorms answers to "Why?" a problem might be happening in order to arrive at an agreed upon root cause.
Time	< 30 minutes.

Directions

Why, Why, Why? is a relatively quick, informal way to identify root causes of problems. Start by writing the problem being addressed and then ask the group to give a reason for "Why this might be happening?" Record the answer after the first "Because" and then ask the question again in reference to the first "Because." Repeat the process three to five times, asking "Why?" for the previous "Because" until the group feels that it has arrived at the root cause of the problem.



Protocol #3: Graphic Representation

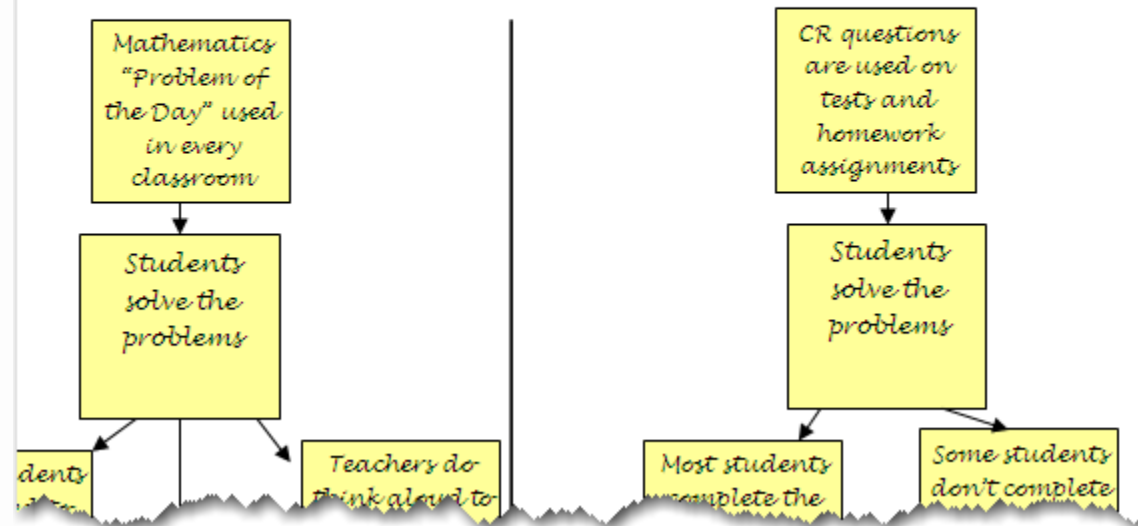


GRAPHIC REPRESENTATION

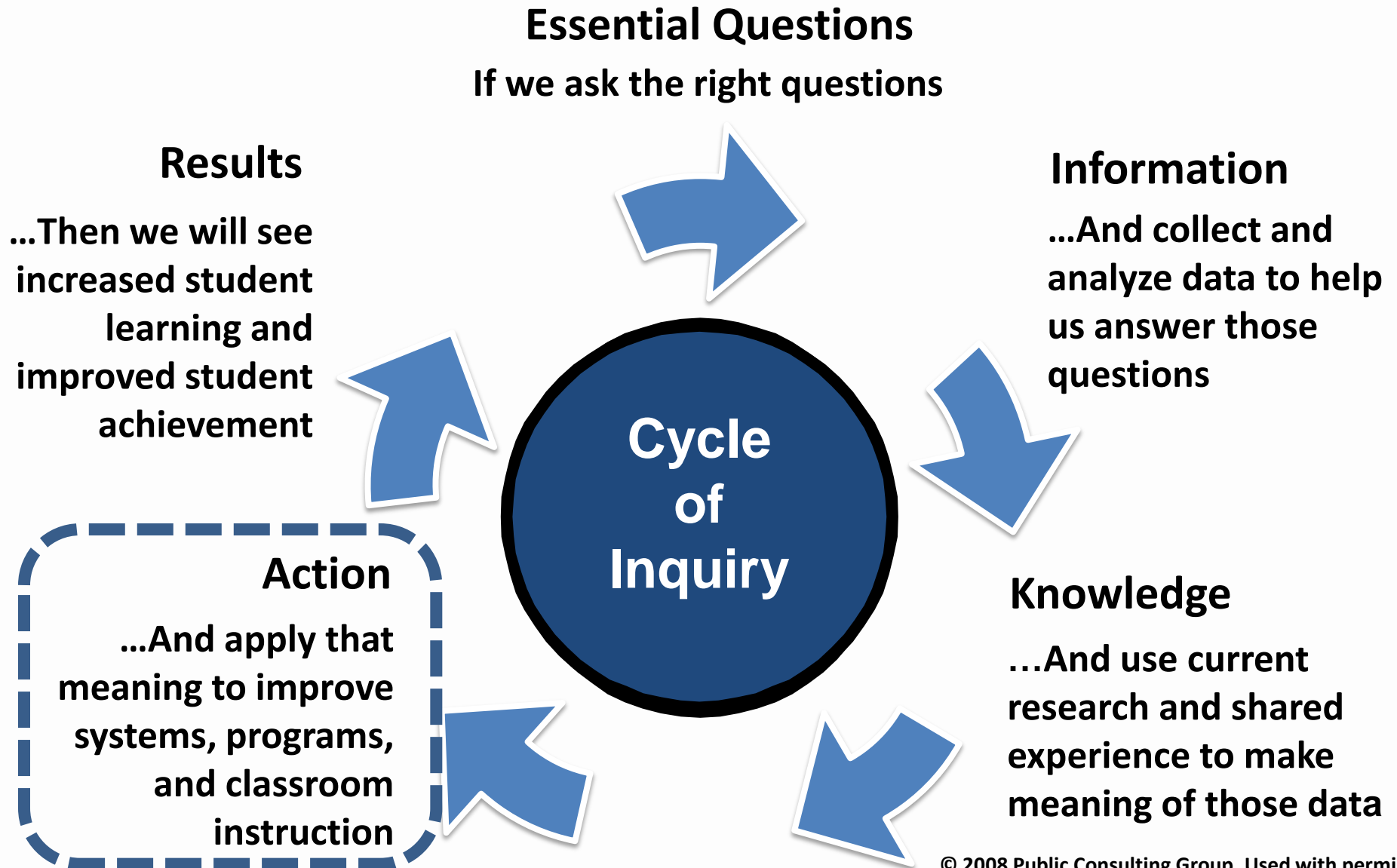
Purpose	Determine a root cause for a problem.
Description	A group works together to design a graphic representation of a problem and the processes that surround it to identify areas of strength and weakness to address, including potential root causes. This technique enables a group to discuss, analyze, and display relationships among factors, so men picture and the fine details it's comprised of. This best with groups of up to five people.
Time	90 minutes to 2 hours.

Graphic Representation Example

Many of our students score poorly on constructed response (CR) questions in mathematics.



The data-driven inquiry and action cycle



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Action planning



“To survive in the new global economy will require massive consistent effort and immediate bold action!

Without further delay, I am putting together a 10-year plan to study the problem further.”

Three types of questions



Discovery

- How did our students do in...?
- To what extent do our teachers...?
- To what extent do our parents...?



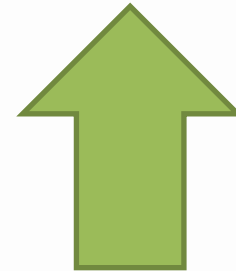
Diagnosis

- Why did our students...?
- Why aren't our teachers...?
- Why aren't our parents...?



Action

- How do we fix...?
- What do we do about...?
- Do we need...?



Action questions form the basis of a solid action plan that is designed to fix the problems found during Discovery and Diagnosis

Building an action plan that works



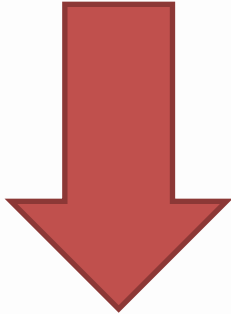
Every action we take in our school should contribute to improving the student outcomes that we care most about.

Elements of an action plan: Step 1

2.4 Educational processes are the effect of teachers' cooperation

Current State

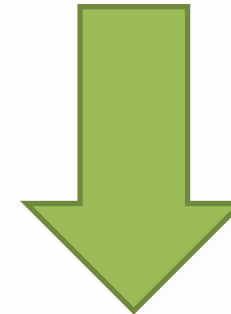
specifically state the issue in your school that you wish to address.



We do not have a shared understanding of high quality student work

Future State

State a specific and measurable target in terms of your desired outcome.



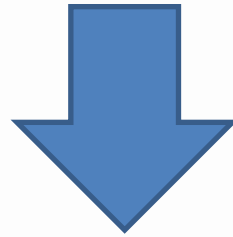
We agree what high quality work looks like and are sharing samples of high quality student work during our grade- or department-level meetings

Elements of an action plan: Step 2

2.4 Educational processes are the effect of teachers' cooperation

Improvement Strategy

Specifically state your strategy for addressing the problem and reaching the improvement target. The strategy should be something that you can accomplish in less than 1 year.



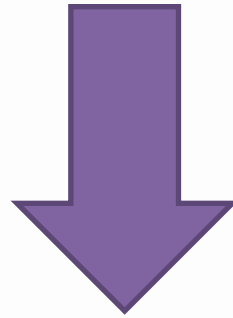
Grade- and department-level teachers will compile a portfolio of exemplary student work and add to and discuss exemplars regularly at team meetings.

Elements of an action plan: Step 3

2.4 Educational processes are the effect of teachers' cooperation

Action Steps

In logical sequence, list all action steps required to implement your improvement strategy. Every step should have a deadline, a specific owner, and identified resources that are needed.



Action Step	Deadline	Owner	Resources
Step 1...	Date	Person	Resource
Step 2...	Date	Person	Resource
Step 3...	Date	Person	Resource

Elements of an action plan: Step 3

2.4 Educational processes are the effect of teachers' cooperation

Grade-level teachers will compile a portfolio of exemplary student work and add to and discuss exemplars regularly at grade-level meetings.

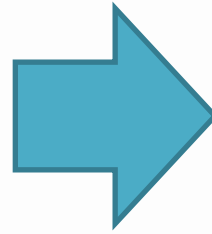
Action Step	Deadline	Owner	Resources
Develop a rubric of exemplary writing	Sep 15	Lead teachers	Grade-level writing standards
Train teachers in how to use the rubric	Oct 15	Lead teachers	Training materials
Collect samples of exemplary work	Nov 1	All teachers submit 2 samples	None
Score and compare samples	Nov 15	All teachers – by grade level	None
Compile exemplars into portfolio	Nov 30	Lead teachers	Binders
Add to portfolio and collaboratively discuss exemplars at each grade-level team meeting	Dec – Jun	Lead teachers (all teachers participate)	None

Elements of an action plan: Step 4

2.4 Educational processes are the effect of teachers' cooperation

Implementation Indicators

What will you see differently in your school if each action step is successfully implemented? Document these as indicators of implementation.



What are the implementation indicators?

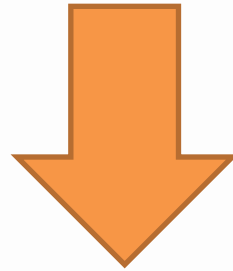
1. **Portfolios of exemplary work for each grade level (by November 30)**
2. **Exemplary work being discussed in grade level teams (December - June)**
 - Meeting minutes
 - Observation
3. **Portfolios growing each month (December - June)**

Elements of an action plan: Step 5

2.4 Educational processes are the effect of teachers' cooperation

Monitoring Progress

Identify how you will collect data on the implementation indicators (how, by whom data, and by when will be collected) and how you will report status to key stakeholders. You should also note when the action plan will be reviewed.



- **Lead teachers will submit portfolios to the principal by Nov 30.**
- **Principal will sit in on grade-level meetings quarterly and review current portfolio of exemplary student work.**
- **Principal will review meeting minutes of grade-level team meetings to ensure exemplary work is being reviewed.**
- **Principal will report back to all faculty at the end of each quarter status of initiative.**

Common pitfalls in the action planning process



Success or failure depends on your answer to these two questions:

- Do you have a sound implementation plan?
- If you fully implement your plan, is there a direct connection to student outcomes?





Protocol #4: Action Planning Template



ACTION PLAN TEMPLATE

Purpose	To document the series of steps needed to ensure that the strategies identified by the Team to address the identified problem areas are implemented as intended.
Description	Develop an action plan (if needed) to implement new strategies or to implement existing strategies more effectively.
Time	30–45 minutes for each strategy requiring an action plan.

Components of an Action Plan

In relationship to the logic model, an action plan has the following components:

INPUTS		OUTPUTS		OUTCOMES	IMPACT
Problem Statement(s)	Strategies	Resources	Measures of Implementation	Measures of Change	Goals



Strategy:				
Action Plans	Resources	Measures of Implementation	Owner	Deadline

The Data-driven inquiry and action cycle

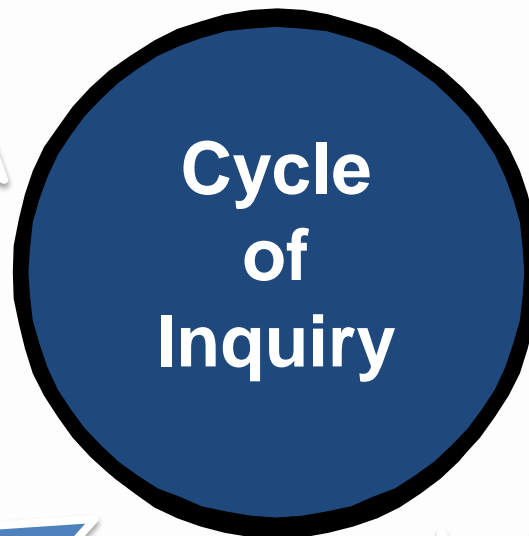
Essential Questions
If we ask the right questions

Information

...And collect and analyze data to help us answer those questions

Knowledge

...And use current research and shared experience to make meaning of those data



Results

...Then we will see increased student learning and improved student achievement

Action

...And apply that meaning to improve systems, programs, and classroom instruction

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Measuring outcomes *as they relate to inputs* is a critical step in determining where to put your energy.

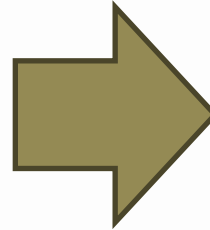
Identifying outcomes

2.4 Educational processes are the effect of teachers' cooperation

Future State: We agree what high quality work looks like and are sharing samples of high quality student work during our grade-level meetings

Outcome Indicators

What are the indicators that will show that your strategies have had the intended impact?



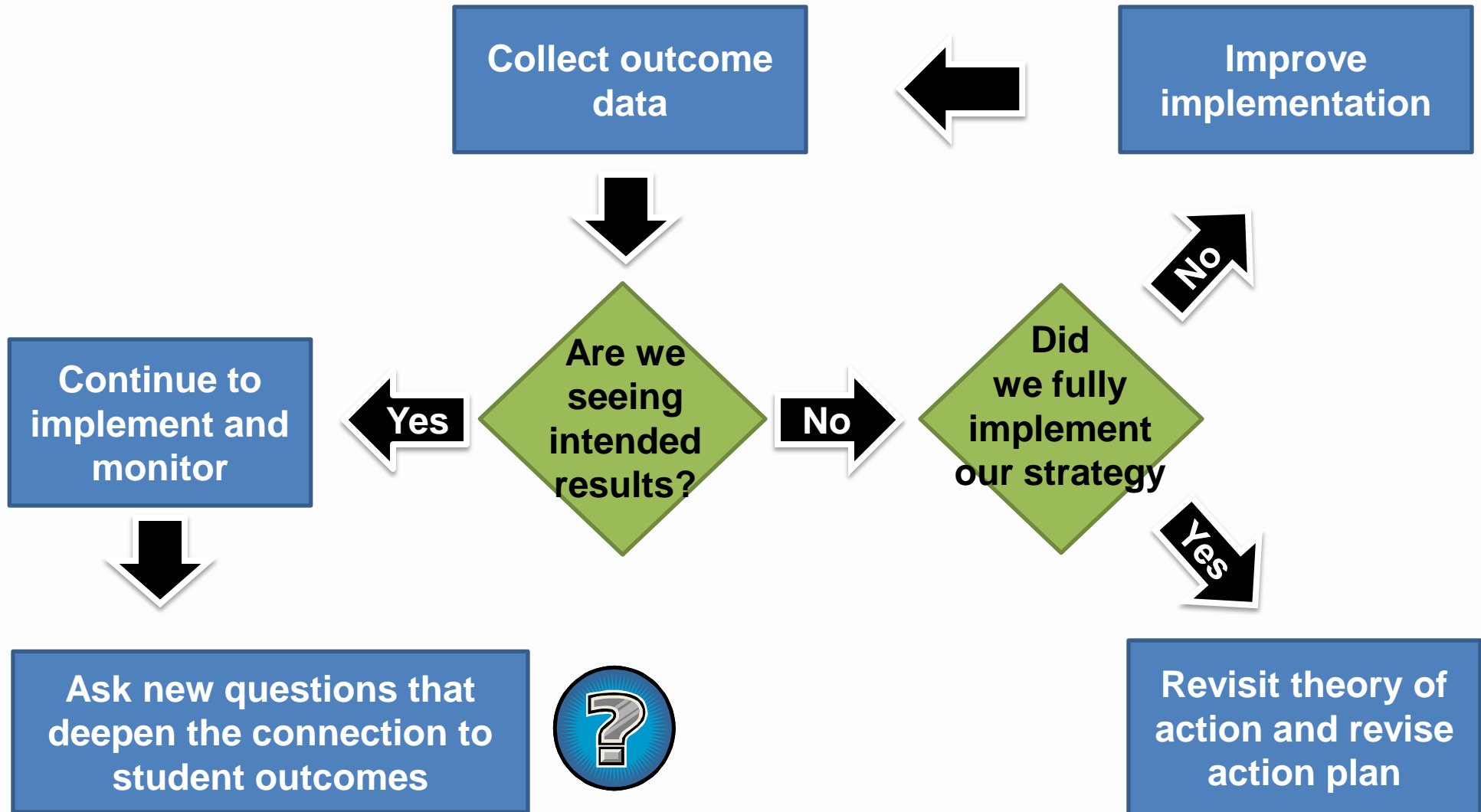
Short term outcomes:

1. Consistency of grading improves across classrooms
2. Students have a better understanding of the criteria for quality work

Long term outcomes:

1. Quality of student writing improves

What's next?



Sample “next level questions”

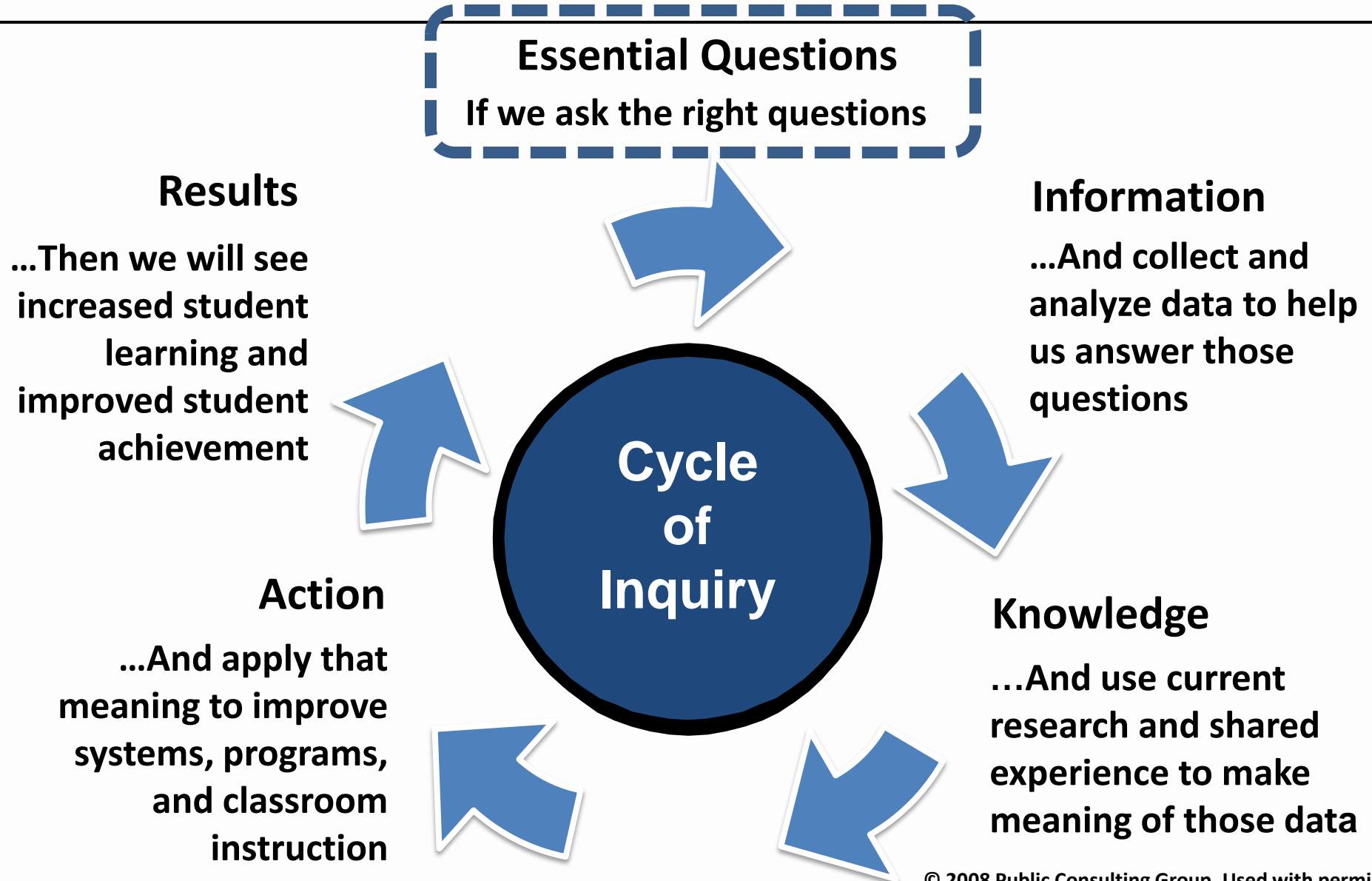
2.4 Educational processes are the effect of teachers’ cooperation

- Where are we seeing the most improvement in student writing?
- Which instructional strategies are contributing most to improved student writing?
- Which teachers are making the most progress with improving writing and what can we learn from them?
- What kinds of supports can we put in place to support all of our teachers in improving student writing?



Collaboration!

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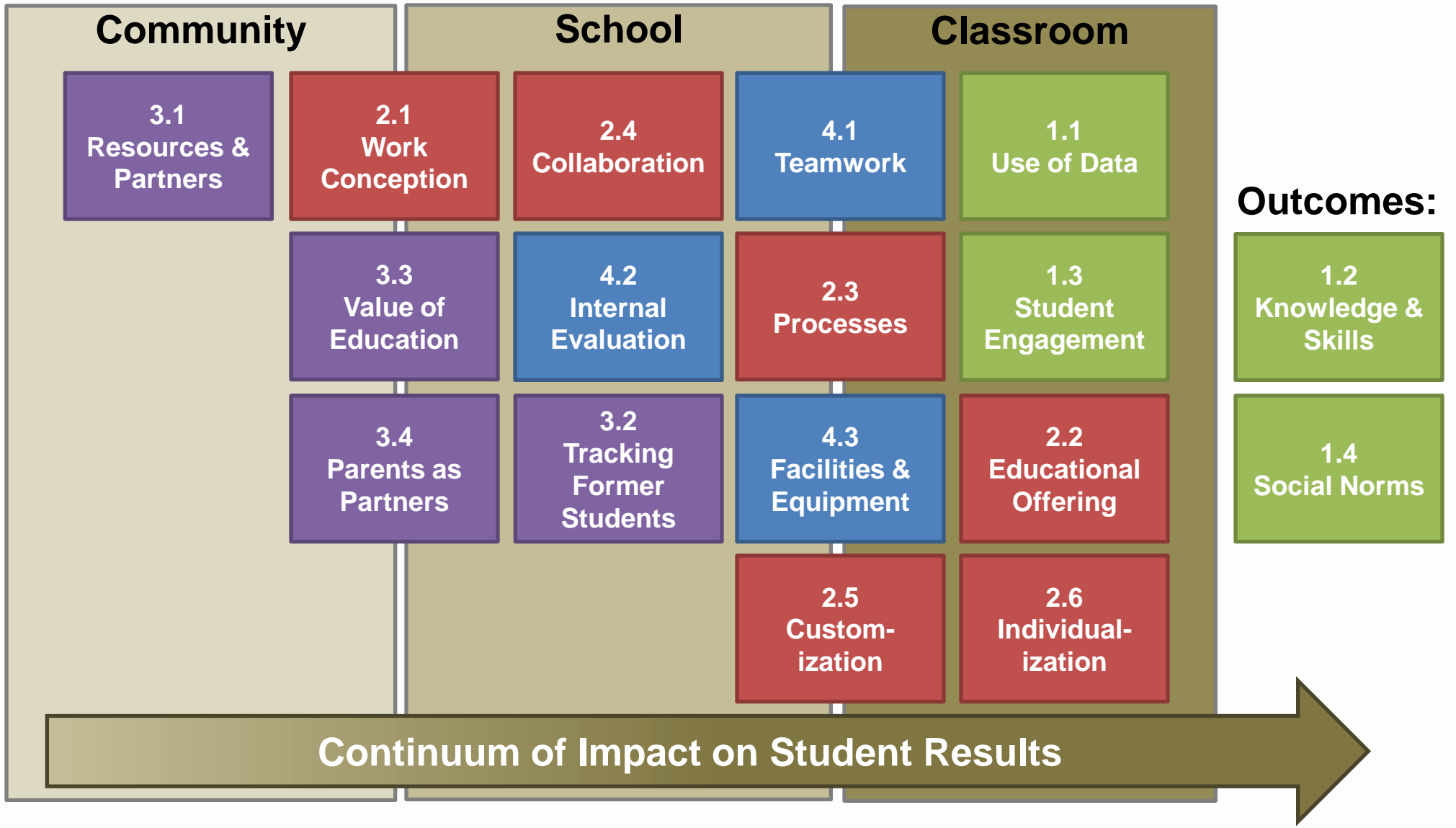


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Wrapping Up

Theory of action applied



Summary

- The Pedagogical Supervision Act provides a framework for the type of data schools can and should analyze on a regular basis.
- Introducing the cycle of inquiry as part of your school planning process can provide a systematic way to move from questions to results.
- Without action, collecting and analyzing data is a meaningless activity. However, impulsive action can be even more destructive.
- Every action we take in our school should contribute to improving the student outcomes that we care most about.
- A shared commitment to collaboration, self-reflection, and communication is essential.

Questions?

For further information, please contact
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