



Aporia Consulting Ltd.

Leading in A Data Rich World: Harnessing Data for School Improvement

Lorna Earl, Ph.D. and Steven Katz, Ph.D.

3219 Yonge St. Suite # 240 Toronto ON M4N 3S1 aporia@attglobal.net www.aporia.ca
tel 416.686.2279 fax 416.686.4162 toll free 1.866.6APORIA



Overview of the Data-Use Series

- A year-long initiative designed to build capacity in evidence-informed decision-making for school improvement
- Process anchored by 3 sessions:
 - Focus is foremost (Nov. 1)
 - Interpretation is meaning-making (Feb. 7)
 - Accountability as conversation (Mar. 30)
- Between-session task completion
- Context-specific support

Leading **SCHOOLS** in a Data-Rich World



Harnessing Data for School Improvement

LORNA EARL
STEVEN KATZ

Foreword by Michael Fullan



Task - Your context

At your tables:

- Describe your school
 - demographics
 - as you think it is viewed by others
 - in terms of school improvement priorities



3 Powerful Insights about How People Learn (National Research Council)

- **People come to learning with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp the new concepts and information that are taught or may learn them superficially and revert to their preconceptions in real situations.**



3 Powerful Insights about How People Learn (National Research Council)

- **To develop competence in an area of inquiry, people must:**
 - **have a deep foundation of factual knowledge**
 - **understand facts and ideas in the context of a conceptual framework**
 - **organize knowledge in ways that facilitate retrieval and application**



3 Powerful Insights about How People Learn (National Research Council)

- A “metacognitive” approach to instruction can help people learn to take control of their own learning by defining learning goals and monitoring their own progress in achieving them.



Task – Explicating Preconceptions

- What tasks do you currently engage in that involve data?
- Give examples of valuable and successful uses.
- What are the challenges/issues that you are experiencing?



Why data; Why now?

- Awash with data
- Data as a policy lever

The Age of Accountability



- **Society**

- Naïve Trust

- The New Orthodoxy

- Healthy Scepticism

- **Practitioners**

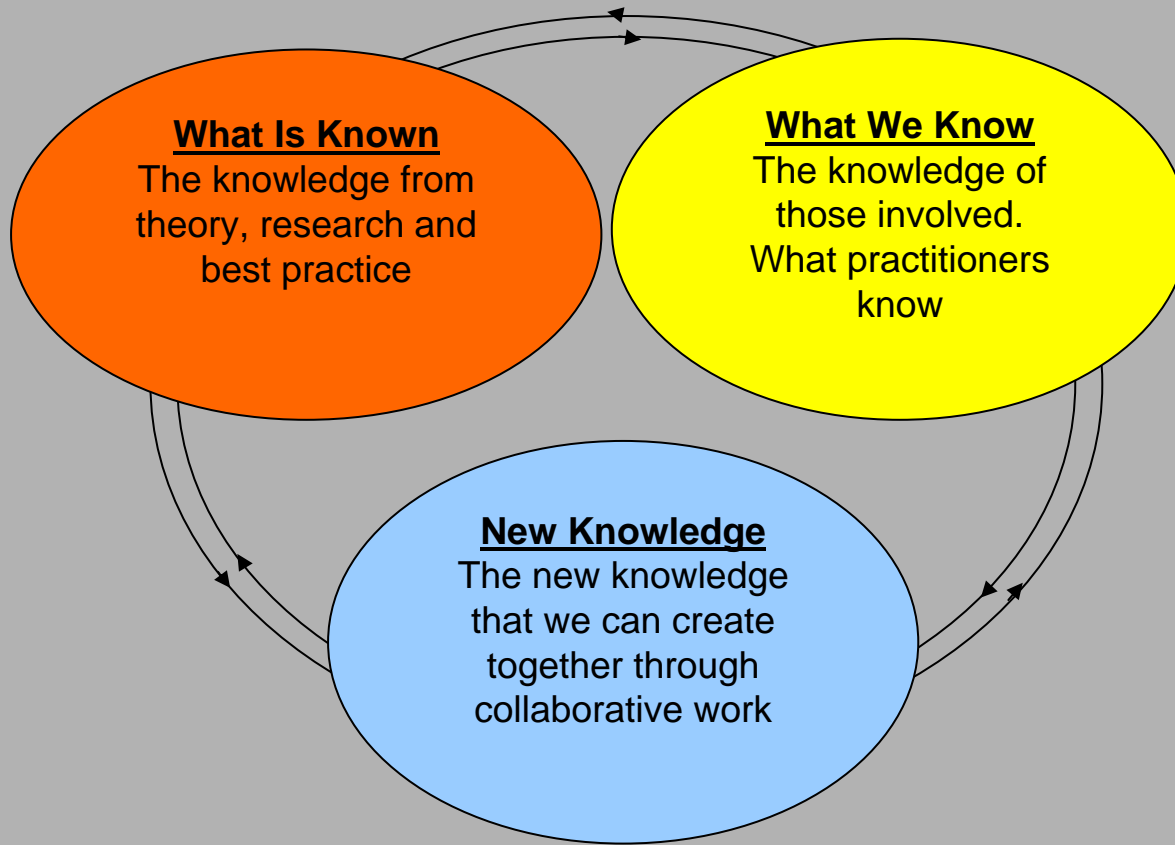
- Intuition and gut feeling

- Victims

- Taking Charge

- Aporia

Three Fields of Knowledge





Accounting and Accountability

- Accounting - gathering, organizing and reporting information that describes performance
- Accountability - the conversation about what the information means and how it fits with everything else that we know and about how to use it to make positive changes



Accountability and Improvement

- Accountability without improvement is empty rhetoric
- Improvement without accountability is whimsical action without direction



Reasons of Head and Heart for Resistance to Using Data

- Cognitive: Know how, know what, know why
- Instrumental: Time, opportunity to learn
- Affective: Fear of evaluation, fear of exposure



Task - Self Assessment of Capacities

- Inquiry Habit of Mind
- Data Literacy
- Culture of Inquiry



Leading in a Data-rich World - Inquiry Habit of Mind

- Values Deep Understanding.
- Reserves Judgment and Has A Tolerance for Ambiguity
- Takes A Range Of Perspectives and Systematically Poses Increasingly Focused Questions



Leading in a Data-rich World – Data Literate

- Thinks About Purpose(s)
- Recognizes Sound and Unsound Data
- Is Knowledgeable about Statistical and Measurement Concepts
- Recognizes Other Kinds of Data
- Makes Interpretation Paramount
- Pays Attention to Reporting and to Audiences



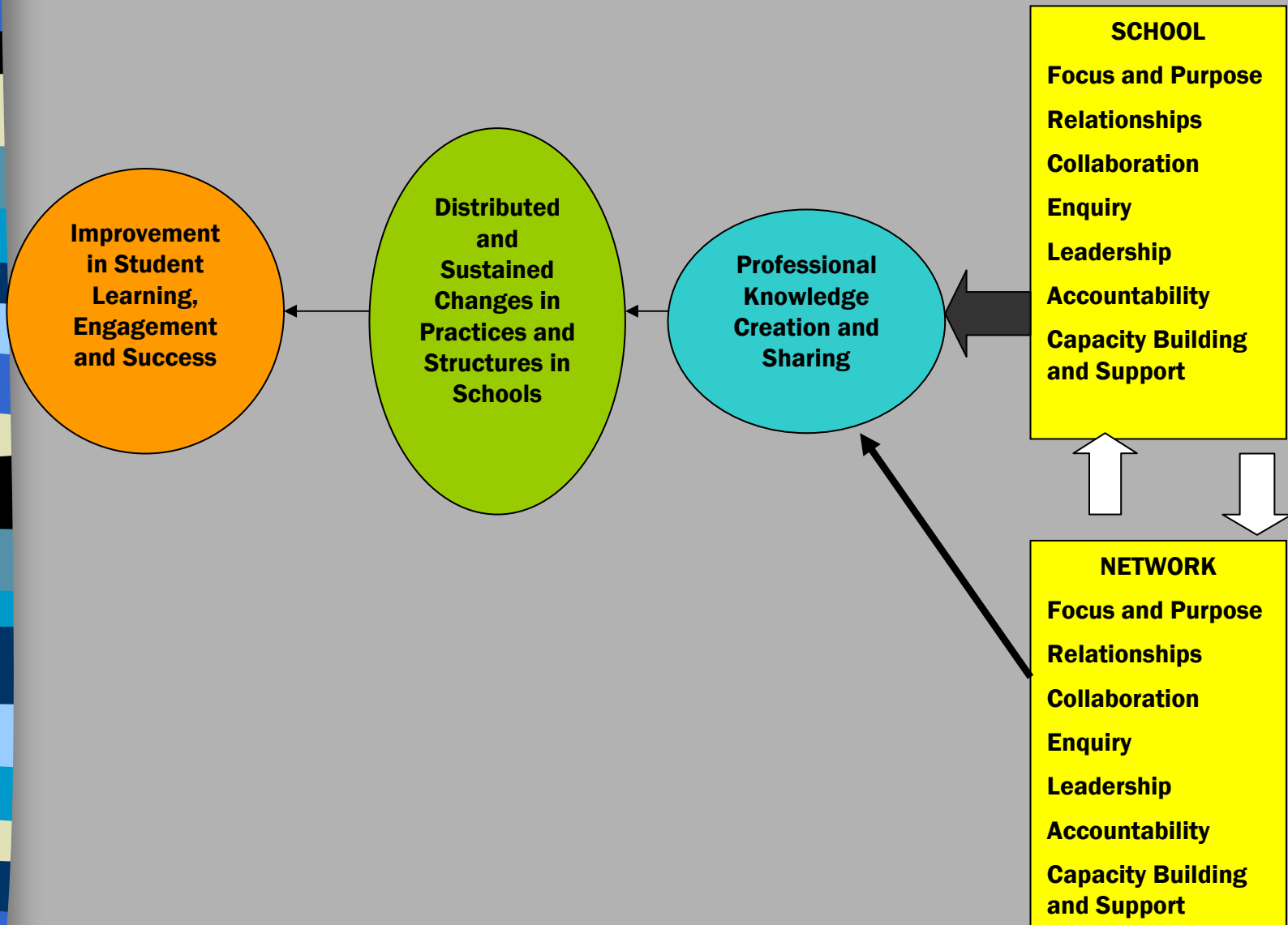
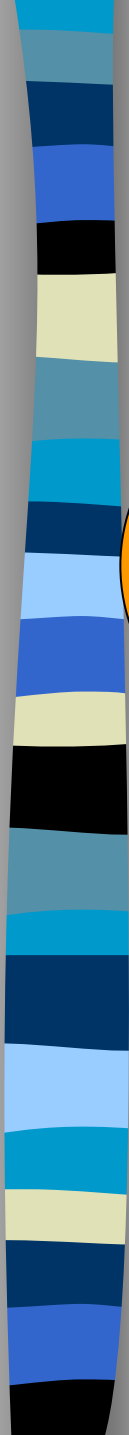
Leading in a Data-rich World – Culture of Inquiry

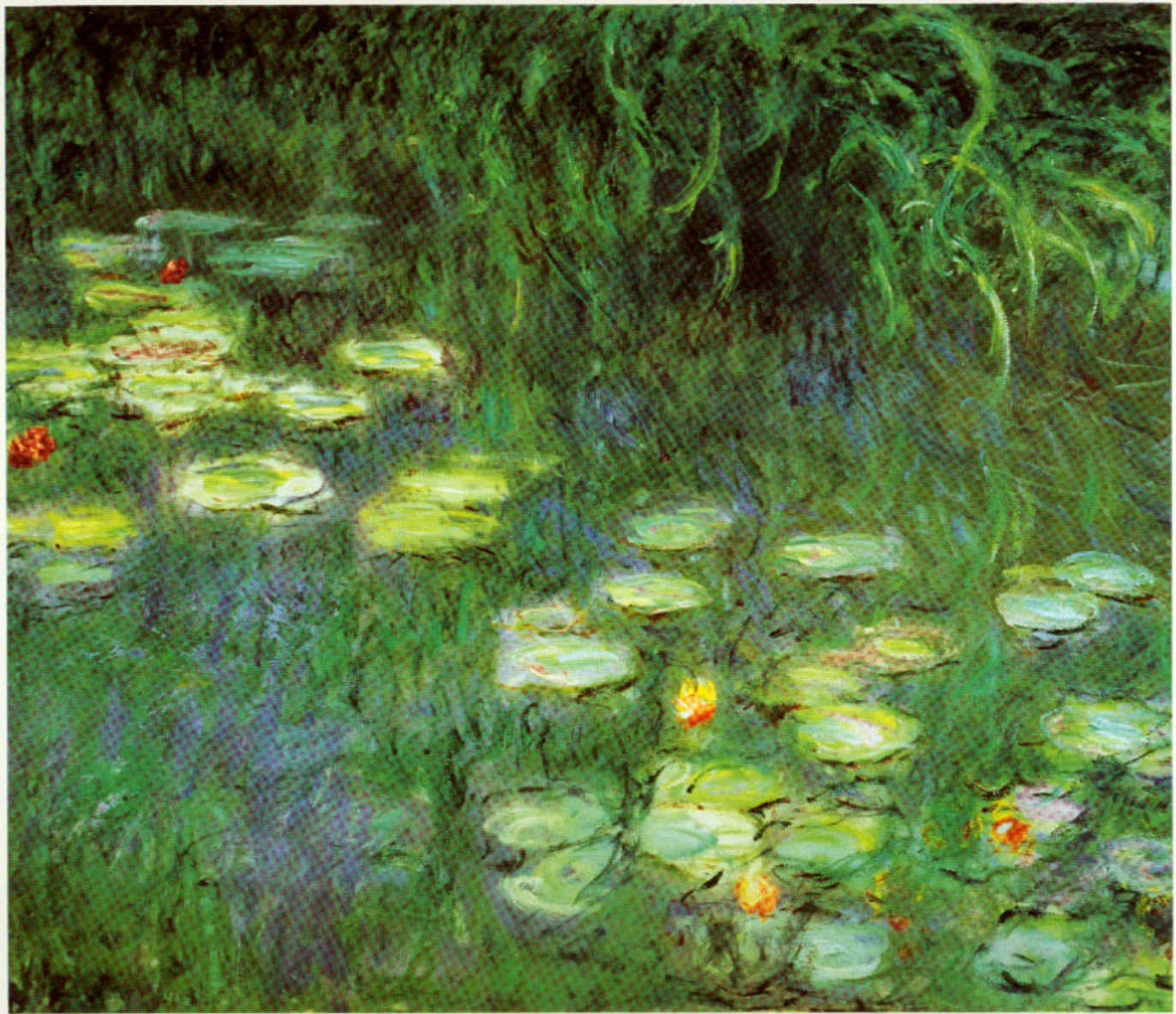
- Involves others in interpreting and engaging with the data
- Stimulates an internal sense of “urgency”
- Makes time
- Uses “critical friends”



Task – Innovative Knowledge Communities to Facilitate Knowledge Creation and Sharing

- Reading activity: The key enablers of knowledge creation based on the Education Canada (in press) article.





PAINTING PICTURES OF YOUR SCHOOL

Inquiry Habit of Mind... Data Literacy

Culture of Inquiry

Setting the Canvas

Planning This Picture

Blocking the Canvas

The First Strokes

The Image Grows

Displaying The Picture

- Why plan?**
- What do we know?**
- Where do we want to go?**

•Establishing role, purpose, and audience

•Matching planning goals to indicator categories
•From indicator categories to data sources

•Examining, interpreting and displaying data
•Formulating key messages

What is included in this picture?
What will we do as a result of our new knowledge?

How will we engage the audiences?
How can we show what we have learned?



Task – Refining the improvement focus

- What is your current school improvement focus?
- Use the Focus questions on the Innovative Knowledge Community inventory to think about your focus in school teams. Pay particular attention to the “How do you know?” question.
- Design a process for refining your school focus “back at the ranch”.



Futures

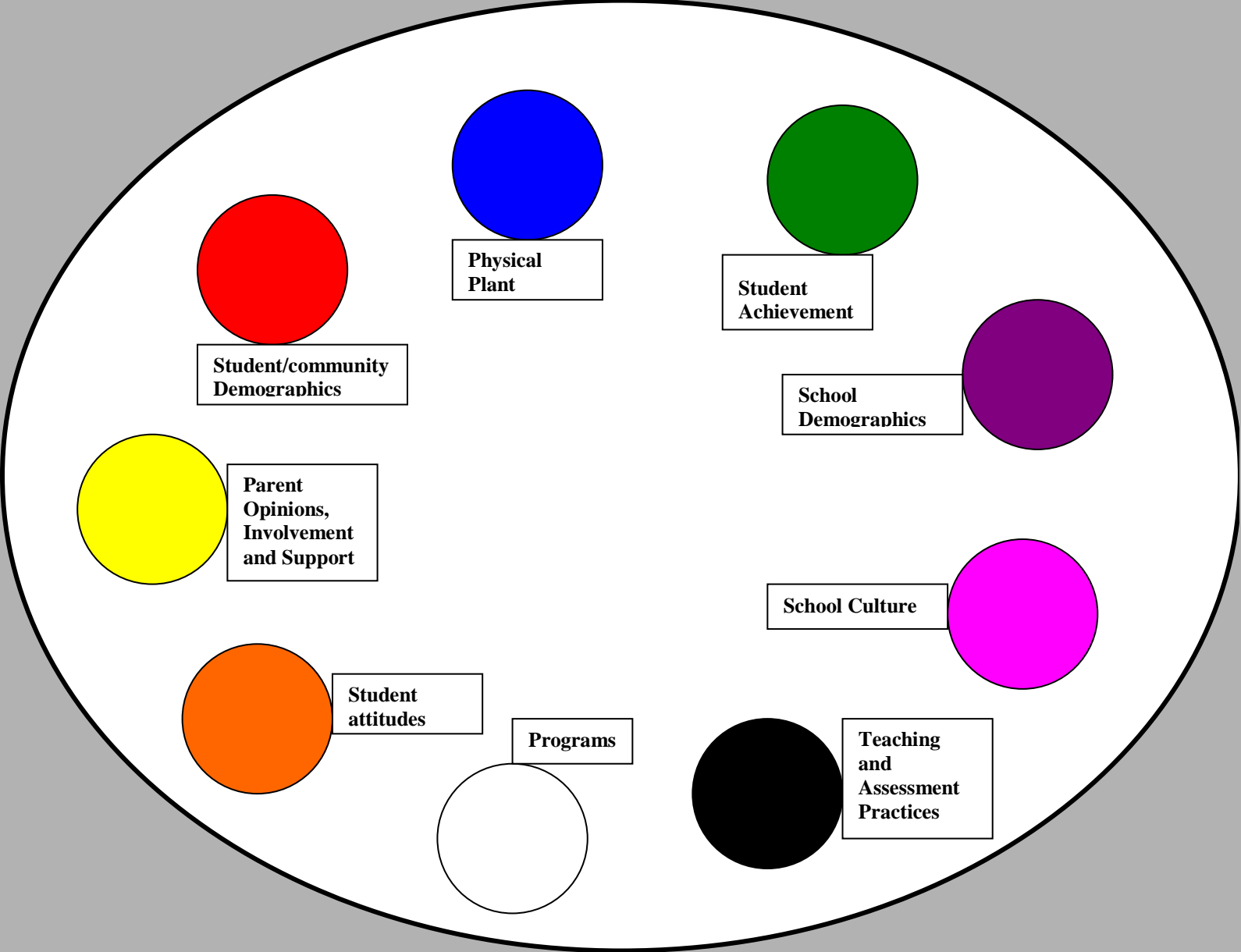
- *Possible futures* - things which could happen, although many are unlikely
- *Probable futures* - things which probably will happen, unless something is done to turn events around
- *Preferable futures* - things you prefer to have happen and/or what you would like to plan to happen

Beare (1996)



Task - Visioning the Future

- Write a paragraph about the current state and the preferred future for your focus.



**Student/community
Demographics**

**Physical
Plant**

**Student
Achievement**

**School
Demographics**

**Parent
Opinions,
Involvement
and Support**

School Culture

**Student
attitudes**

Programs

**Teaching
and
Assessment
Practices**



Task - Selecting your Colours

- What indicator categories relate to your focus?
- From Indicator Categories to Hypotheses



An Image of the Process

- Silverthorn Video



Task – Establishing Leadership Roles

- Use the Formal and Informal Leadership questions from the Innovative Knowledge Community inventory to think about Leadership in your school teams



Homework

- Work with your school team to:
 - Explore the extent to which your school is an innovative knowledge community using the inventory
 - Refine and revise the focus in the school
 - Revisit the indicator categories and hypotheses
 - Locate data that matches the indicator categories relevant to the school's palette
- Bring your data to the next meeting