How Teachers Can Turn Data Into Action
(ASCD, 2014)

The Practice of Authentic PLCs: A Guide to Effective Teacher Teams
(Corwin, 2011)

Schools tend to be:
• Good at amassing data
• Good at looking (or attempting to look) at data
• Bad at responding to the data
• Bad at changing instructional practice based on the data

Need for a Process
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**Data Action Model**

**Systematic, User-friendly**
- Slows the process down
- Avoids rushing to conclusions
- Relies on evidence rather than “hunches”
- Forces instructional change

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**Center for Authentic PLCs**

**At a Glance** (the Nutshellized version)

**Organized by Meetings**
- Review Existing Data
- Explore additional, relevant data
- Identify Learning Gaps
- Link to Instructional Gaps
- Set a goal and Action Plan (that includes new instructional strategies)
- Implement in Classroom
- Evaluate Success

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**Center for Authentic PLCs**

**At a Glance** (the Nutshellized version)

**DATA MEETING 1**
- Reviewing Existing Data & Asking Questions
**DATA MEETING 2**
- Triangulating the Data
**DATA MEETING 3**
- Determining Gaps & Goals
**DATA MEETING 4**
- Planning for Action
**DATA MEETING 5**
- Evaluating Success & Next Steps

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Reviewing Existing Data and Asking Questions
1. Notice & Wonder Protocol
2. Ask Exploratory Questions
3. Decide which artifacts are needed & who will bring them

Notice Statements
- factual observations
- free of inference and speculation
- no mention of causality
- reflect what is present (in the data) and not why this may be so
### READING TRACKER

**SUBGROUP BY STRAND**

<table>
<thead>
<tr>
<th>No. Students</th>
<th>Scaled Score</th>
<th>Literal Level</th>
<th>Interpretive Level</th>
<th>Analytical Level</th>
<th>Critical Level</th>
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<tbody>
<tr>
<td>All Students (123)</td>
<td>728</td>
<td>53</td>
<td>8/15</td>
<td>57</td>
<td>4/7</td>
</tr>
<tr>
<td>Female (65)</td>
<td>730</td>
<td>60</td>
<td>12/15</td>
<td>57</td>
<td>4/7</td>
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<tr>
<td>Male (58)</td>
<td>754</td>
<td>67</td>
<td>10/15</td>
<td>43</td>
<td>3/7</td>
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<tr>
<td>White (47)</td>
<td>772</td>
<td>73</td>
<td>11/15</td>
<td>100</td>
<td>7/7</td>
</tr>
<tr>
<td>Black (32)</td>
<td>730</td>
<td>60</td>
<td>12/15</td>
<td>57</td>
<td>4/7</td>
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<tr>
<td>Asian (6)</td>
<td>812</td>
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<td>15/15</td>
<td>100</td>
<td>7/7</td>
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<tr>
<td>Hispanic (26)</td>
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<td>33</td>
<td>5/15</td>
<td>43</td>
<td>3/7</td>
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<tr>
<td>Multiracial (12)</td>
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<td>29</td>
<td>2/7</td>
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<td>ED (49)</td>
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<td>4/15</td>
<td>43</td>
<td>3/7</td>
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<tr>
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<td>27</td>
<td>4/15</td>
<td>14</td>
<td>1/7</td>
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<td>ELL (18)</td>
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<td>27</td>
<td>4/15</td>
<td>14</td>
<td>1/7</td>
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</table>

ED% = Economically Disadvantaged; SWD = Students with Disabilities; ELL = English Language Learners

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**Wonder Statements**

- "I wonder (why, if, how, whether)"
- may be speculative, inferential
- may reflect possible causes
- may be comparative
- should include statements about instruction (and not merely about student performance)
- may or may not be linked to Notice Statements

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**Notice Statements**

- may be comparative, inferential
- may reflect possible causes
- may be speculative
- may include statements about instruction (and not merely about student performance)
- may or may not be linked to Notice Statements

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Exploratory Questions
- are derived from Wonders
- reflect past practice or results
- provide the compass for gathering artifacts/more info
- focus the team (and filter out extraneous information)
- address issues worthy of investigation
- lead to identifying gaps

How are we assessing our students’ mastery of making inferences from text? Is it in a manner consistent with the depth of mastery expected by the PARCC assessment?

How are we presently teaching modeling with quadratic functions, and why do our students do so poorly on them?

Data Meeting 2
- Review of artifacts
- Focus Exploratory Question
- Track Learning & Instructional Gaps
### Data Action Model

#### Artifact Tracking Sheet 2.0

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Observed Learning Gap</th>
<th>Relative Significance</th>
<th>Prominence</th>
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<tr>
<td>Student Work</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Teacher Lesson Plan(s)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Teacher Instruction Calendar</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Test Items</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Unit Plan</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

#### Center for Authentic PLCs

**Data Meeting 3**

**Determining Gaps & Goals**

1. Identify Learning gaps
2. Identify Instructional gaps
3. Set a Target Learning Goal
4. Decide an evaluation metric

**Strategies Search**

- Einstein’s Insanity
- Something old, new, borrowed, blue

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Planning for Action

1. Review new strategies/activities
2. Develop a Data Action Plan

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Implementation
(where the "rubber meets the road")

Between DM4 and DM5

• 1 – 4 weeks
• PLC continues to meet during Implementation Period
• Looks at Teacher Work, Student Work, Issues & Dilemmas, Text

Evaluate Success

• Use Evaluation Metric
• Decide next steps

Questions?

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DATA ACTION MODEL

Schedule of Data Meetings: Using Data from Taught Topics

Gathering and Reviewing Data
- DM1
  - Reviewing Existing Data and Asking Questions
    - 1. Review Existing Data
    - 2. Ask Exploratory Questions
    - 3. Decide who will bring what

Identifying Gaps
- DM2
  - Triangulating the Data
    - Triangulate Additional Data

- DM3
  - Deciding Gaps and Goals
    - 1. Identify Learner Gaps
    - 2. Identify Instructional Gaps
    - 3. Set a Target Learning Goal
    - 4. Decide an Evaluation Metric

Planning For and Evaluating Action
- DM4
  - Planning for Action
    - 1. Review Strategies and Activities
    - 2. Develop a Data Action Plan

- DM5
  - Evaluating Success and Deciding Next Steps
    - 1. Evaluate Effectiveness of Implementation
    - 2. Decide the next Course of Action

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NOTICE & WONDER PROTOCOL - Data

A protocol for analyzing data both descriptively and inferentially developed by Daniel R. Venables

TIME: 40 minutes

Roles: Facilitator, Timekeeper, Scribe

I. Participants are presented with a table and/or graph of data pertaining to their practice. The data may be displayed on a screen for all to see, or it may be given to each PLC member in hardcopy form. (I prefer the former, since graphs and sometimes data in table form are often illustrated in color.)

II. Each participant is given a 5 x 7 index card. Quietly and individually, participants write 3 or 4 observations evident in the graph or table. These observations must be free of inference or speculation; they are factually based from objectively examining the display. Each observation starts with the phrase “I notice that...” (5 min)

III. Round 1. In turn, each participant reads aloud one new observation that has not yet been shared, each time beginning with the phrase “I notice that...” The scribe records the responses on chart paper or in a Google doc. After the last participant shares one new observation, the first participant offers a second new observation and the process continues until all observations have been shared aloud, without discussion. (5 min)

IV. Each participant turns over his index card and quietly writes 3 or 4 speculations or question-statements based on the observations heard in Round 1. These speculations attempt to offer possible explanations for the observations, or pose suggestions for pursuing additional data. No attempt should be made to solve the problems that surface; the intent is to gain insights into what the data suggest, how the data are connected and what the data imply. Each speculation starts with the phrase “I wonder why...”, “I wonder if...” “I wonder how...”, or “I wonder whether...” (5 min)

V. Round 2. In turn, each participant reads aloud one new speculation that has not yet been shared, each time beginning with the phrase “I wonder...” The facilitator records the responses on chart paper. This process continues as in Round 1 until all speculations have been shared aloud, without discussion, except in cases where the facilitator chooses to ask follow-up questions to a teacher sharing a Wonder statement or to the team. (10 min)

VI. Discussion. The PLC discusses what has been shared and possible causes, connections and links to classroom instruction and notes other additional data that may be needed. (15 min)

How Teachers Can Turn Data into Action
by Daniel R. Venables

FROM STATE AND COMMON CORE TESTS TO FORMATIVE AND SUMMATIVE ASSESSMENTS IN THE CLASSROOM, TEACHERS ARE AWASH IN DATA. Reviewing the data can be time-consuming, and the work of translating data into real change can seem overwhelming.

Tapping more than 30 years’ experience as an award-winning teacher and a trainer of PLC coaches, Daniel R. Venables, author of The Practice of Authentic PLCs: A Guide to Effective Teacher Teams, soothes the trepidation of even the biggest “dataphobes” in this essential resource. Field-tested and fine-tuned with professional learning communities around the United States, the Data Action Model is a teacher-friendly, systematic process for reviewing and responding to data in cycles of two to nine weeks. This powerful tool enables you and your teacher team to

• Identify critical gaps in learning and corresponding instructional gaps;
• Collaborate on solutions and develop a goal-driven action plan; and
• Evaluate the plan’s effectiveness after implementation and determine the next course of action.

With easy-to-use templates and protocols to focus and deepen data conversations, this indispensable guide delineates exactly what should be accomplished in each team meeting to translate data into practice. In the modern sea of data, this book is your life preserver!

Author

DANIEL R. VENABLES is founder and executive director of the Center for Authentic PLCs (www.authenticPLCs.com), an independent consulting firm committed to assisting schools in building, leading, and sustaining authentic PLCs. Daniel has been a classroom teacher in both public and independent schools in South Carolina, North Carolina, and Connecticut for 24 years.

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2014 ASCD Book, 7” x 9,” 149 pgs.

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<tr>
<td>ISBN</td>
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