



# Profiling Engaged Learning—Using Data for Changing Instruction and Achievement

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# Session Overview

- **Background/Origin**
- **IPI Categories**
- **Data Collection Protocols**
- **Practice Coding Examples**
- **Faculty Collaborative Conversations**
- **Typical Profiles**
- **Highly Successful/Unsuccessful Profiles**

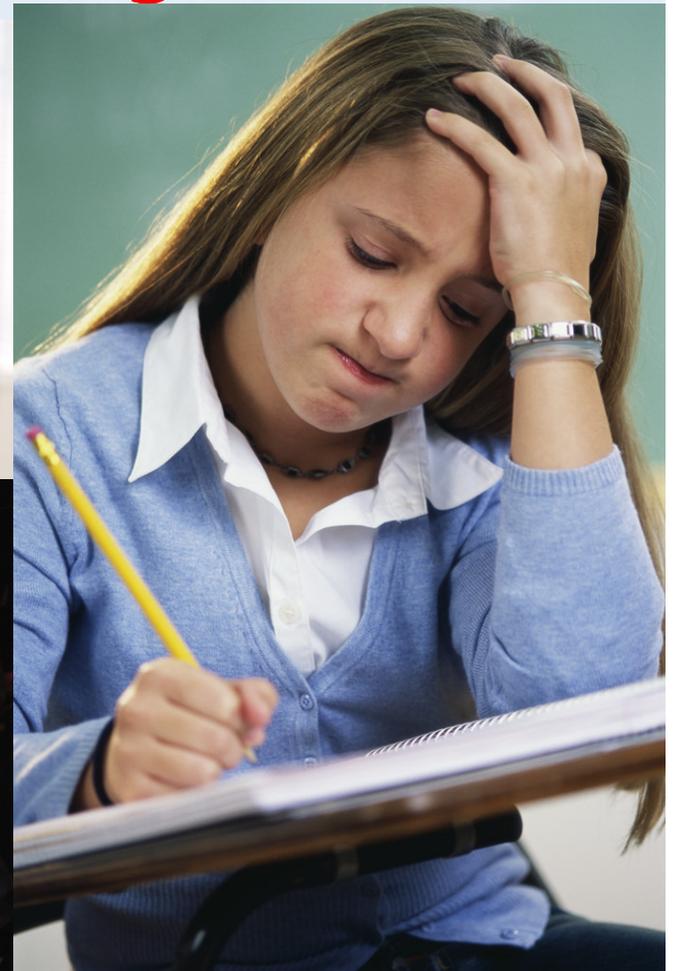
# IPI Background and Origin

- **Project ASSIST: Comprehensive School Reform Initiative (1996)**
  - Needed Data to Monitor Instructional Change
  - Needed Data as basis for Teacher Reflection
- **Fits Concepts of Professional Learning Communities and Learning Organizations**
  - **Faculty Discussions/Analysis of Data about Teaching/Learning**
    - “Develop an **optimum profile** of student engaged learning that teachers will view as fair and accurate.”
    - “Engage teachers in the **reflective, problem solving conversations** so instructional change evolves.”
    - “Continue to collect, analyze, and problem solve on a **longitudinal basis.**”

# Mental Image: Faculty Collaborative Conversations to Analyze the Data



# Mental Image: Collect Large Volume of "Snap Shots" of Student Engagement and Thought...



# **IPI Categories—Higher Order Learning**

- **6— Student Active Engaged Learning**
  - Higher-Order Learning
  - Typically students doing authentic, hands-on, problem-based, research, etc. forms of learning
- **5—Student Learning Conversations**
  - Higher-Order Student-Student Verbal Learning
  - Typically conversations among students who are constructing knowledge together

# **IPI Categories--Higher Order Learning**

**Analysis, Synthesis, Decision-Making  
from Analysis, Application from  
Analysis**



**Recall, Simple Understanding, Memory,  
Fact-finding**

# IPI Categories—Direct Instruction and Student Supervised Work

- **4—Teacher-Led Instruction**
  - Students attentive to teacher leading the learning experience
  - Typically students listening to teacher share, explain, give directions, etc.
- **3—Student Work with Teacher Involved**
  - Students working individually or in groups with teacher support evident
  - Typically students doing worksheets, answering questions, taking tests

# **IPI Categories—Student Independent Work and Disengagement**

- **2—Student Work w/o Teacher Involved**
  - Students working individually or in groups with teacher support not evident (independent work)
  - Typically students doing worksheets, answering questions, taking tests
- **1—Students Not Engaged in Learning the Curriculum**
  - Students are not engaged with the curriculum
  - Typically students talking, inattentive, misbehaving, etc.

# **IPI Protocols for Data Collection**

- **Data observations on “typical” days**
- **Systematically move from classroom to classroom based upon the floor plan of the school**
- **Focus on students, not the teacher**
- **Code student learning during first moments of observation**
- **When observation is borderline between two codes, select higher code**
- **Code during regular learning time, not transitions between content areas**
- **Classrooms of special education and student teachers are observed and coded**
- **Classrooms of substitute teachers are coded and included in profile if higher-order learning**
- **All observations are anonymous**

# **IPI Example 1**

**As the observer enters the science classroom, the students are listening attentively to the teacher give them directions for the litmus experiment they will begin in a few minutes. Most of the students are making a few notes in their notebooks while the teacher explains the process.**

**Which of the IPI categories should be coded for this example?**

# **IPI Example 1**

**As the observer enters the science classroom, the students are listening attentively to the teacher give them directions for the litmus experiment they will begin in a few minutes. Most of the students are making a few notes in their notebooks while the teacher explains the process.**

**IPI Code: Category 4—Teacher-Led Instruction**

## **IPI Example 2**

**As the observer enters the language arts classroom, the students are creating (original) poems. The teacher is moving among the students encouraging them as they work. They have a rubric on their desks that addresses rhyme, meter, imagery, content, emotion, and length. As you read the first few stanzas of some of the poems you are impressed with their depth of thought and emotion.**

**Which of the IPI categories should be coded for this example?**

## **IPI Example 2**

**As the observer enters the language arts classroom, the students are creating (original) poems. The teacher is moving among the students encouraging them as they work. They have a rubric on their desks that addresses rhyme, meter, imagery, content, emotion, and length. As you read the first few stanzas of some of the poems you are impressed with their depth of thought and emotion.**

**IPI Code: Category 6—Student Active Engaged Learning**

## **IPI Example 3**

**As the observer enters the 8<sup>th</sup> grade math classroom the students are seated at their tables completing a textbook assignment. When you look at their work you see they are independently computing word problems about the total cost of several consumer items and the amount of change to expect. The teacher is working at her computer creating a test and has her back to the students.**

**Which of the IPI categories should be coded for this example?**

## **IPI Example 3**

**As the observer enters the 8<sup>th</sup> grade math classroom the students are seated at their tables completing a textbook assignment. When you look at their work you see they are independently computing word problems about the total cost of several consumer items and the amount of change to expect. The teacher is working at her computer creating a test and has her back to the students.**

**IPI Code: Category 2—Student Work w/o Teacher Involved**

## **IPI Example 4**

**As the you enter the seventh grade social studies class, the students are watching selected segments of the movies Pearl Harbor and Midway. The teacher is standing by the DVD/VCR player watching the segments with the students. You can tell from the books on the students' desks that the class is studying WWII. You are in the room about one minute.**

**Which of the IPI categories should be coded for this example?**

## **IPI Example 4**

**As the you enter the seventh grade social studies class, the students are watching selected segments of the movies Pearl Harbor and Midway. The teacher is standing by the DVD/VCR player watching the segments with the students. You can tell from the books on the students' desks that the class is studying WWII. You are in the room about one minute.**

**IPI Code: Category 3—Student Work with Teacher Involved**

# **IPI Example 5**

**As the you enter the eighth grade art classroom, the students are in small groups of four or five students. Each group has a print of a classic painting and the students are discussing the paintings. The discussions are stimulated by two analysis-level questions written on the board. One student in each group is taking notes for the group. As you begin to leave the room two minutes after entering, you hear the teacher say that it is time to explain their group analyses and defend them to the whole class.**

**Which of the IPI categories should be coded for this example?**

# **IPI Example 5**

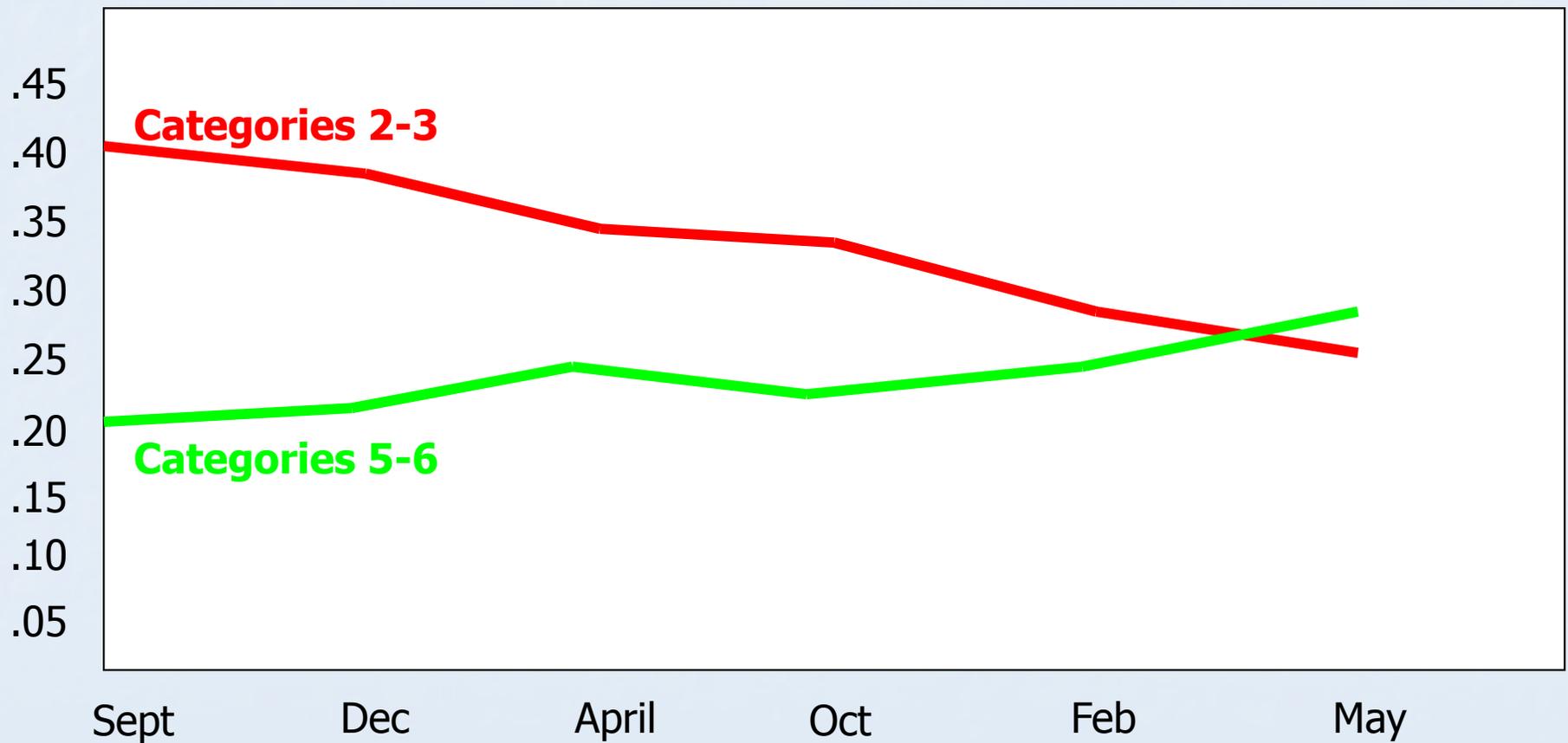
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**IPI Code: Category 5—Student Learning Conversations**

# Who Collects the Data?

- **Principals Can Collect Data for Profiles**
  - **Be aware of biases**
  - **Never link profiling process to evaluation**
- **Teacher-Leaders Should Collect Data**
  - **Observations provide teachers with broader perspective about learning**
  - **Teachers are not evaluators**
  - **Faculty embrace data quicker when teachers collect data and facilitate conversations about the data**

# Longitudinal Effect...



# **Analyze the Data Profiles: Create Collaborative Conversations — Build Professional Learning Community**

- **Faculty study session of the data following each data collection**
- **Create small groups and think—Category 5**
- **Use large easel paper per table**
- **Post the table analyses**
- **Talk as a whole faculty and think—Category 5**

# **Faculty Work Session I: Analysis and Discussion of the Profile Data**

- **Small and Whole Group Analyses and Discussion**
  - **Was it a “typical” day (when data were collected)?**
  - **What do we see in the profiles that we can feel good about or celebrate?**
  - **What do we see in the data profiles that we should be concerned about and thus study and discuss more deeply?**
  - **Are these types of data valuable to us?**

# **Faculty Work Session I: Post-session Requests**

- **Request for sub-group analyses...**
  - **Can we have a profile for the math program?**
- **Individual teacher self-assessment...**
  - **Can I build a profile of my students' engagement using this process?**
  - **Value/benefit of self-ratings vs. accuracy/reliability of self-ratings?**

# **Faculty Work Session II: Deeper Analyses with Longitudinal Perspective and Goal Setting**

- **How do we begin to share knowledge about effective strategies that will change the percentages?**
  - **Collaboratively brainstorm in small groups examples of categories 5-6 use in past week**
  - **Move conversation to whole faculty sharing**
  - **Move conversations after faculty meeting to sub-groups such as content areas, teams, or grade levels**

# **Faculty Work Session III: Deeper Analyses with Longitudinal Perspective and Goal Setting**

- **For each category percentage, should we:**
  - **Increase?**
  - **Maintain?**
  - **Decrease?**
- **If change is appropriate...**
  - **How much?**
  - **By when?**
- **How do we begin to share knowledge about effective strategies that will change the percentages?**

# **“Typical” Profiles...not norms**

- **Are there differences between typical profiles by grade levels, (elem., middle, and high school)?**
- **Are there differences between typical profiles for core and non-core classes?**
- **Are there differences between profiles for more effective and less effective schools?**

# IPI Coder Reliability Standards

- Minimum Reliability for user endorsement:
  - .80 for site-based school improvement data
  - .90 for research
- Coder Reliability Study
  - w/o Workshop      .05-.20 Reliability    avg. .17
  - With Workshop     .80-1.0 Reliability    avg. .93

# Suggested Resources...

- For more detailed information about the IPI see **Instructional Practices Inventory: Profiling Student Engagement for School Improvement** (Valentine, 2005) available at [www.MLLC.org](http://www.MLLC.org)
- For more detailed information about Project ASSIST see **Frameworks for Continuous School Improvement: A Synthesis of Essential Concepts** (Valentine, 2001) and Project ASSIST Research paper presented at available at AERA, April 2006 in San Francisco. [www.MLLC.org](http://www.MLLC.org).
- For information about IPI Level I (Coder Training) and Level II (Advanced Faculty Work Session Facilitation) workshops at the Middle Level Leadership Center, see [www.MLLC.org](http://www.MLLC.org), call 573-882-0944, or email [ValentineJ@missouri.edu](mailto:ValentineJ@missouri.edu).