

## Using PLC's to Improve Curriculum Mapping

Eastern Elementary School

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IPLI Action Research Project 2019

# Background Leading To This Inquiry

Historically, Eastern Elementary School is a great rural school on the eastern border of Howard County. Great teachers. Great students. Great families and all that jazz!

Realistically, our vision was changing and leading us into newer standards, newer state assessments, and even a newer dynamic of students. I needed to be sure that we were not just teaching the standards and resting on the past success that Eastern had earned. I need to lead our teachers towards prioritizing standards and further incorporating best practices.

It took IPLI to really help me see this as a priority.

# Purpose of This Inquiry



1. To incorporate a professional learning format that would wake the staff back up to true curriculum discussions.
2. Lead our teachers towards prioritizing standards.
3. Further incorporating best practices through lesson reviews.

# Our Wondering



**We wondered if the PLC format could help Eastern Elementary School to help create a viable curriculum based on prioritizing standards, lesson reviews, and curriculum discussions.**

# Our Actions

1. We had to educate the staff on the PLC process.
2. Perform lesson reviews. (Pretest, teach the same objective, posttest, and discuss.)
3. Prioritize standards. (Starting with math.)

# Data Collection: Lesson Review

Grade level teams all chose the same lesson objective/standard to assess. After the pretest was administered, the lesson taught, and posttest administered, teams met back together to discuss the two “follow up questions” at the bottom of the agenda. Facilitators then reported back to the principal and the two teacher leaders.

# Data Collection: Lesson Review

## Lesson Review Agenda December 4-5, 2018

Grade Level:  
Facilitator:  
Recorder:  
Timekeeper:

**Review Norms:** Confidential. Supportive. Open to what others have to share. Remember that this is to promote positive collaboration as a team.

**Celebrations:** Everyone list something they wish to celebrate with the group (30 seconds each)

**Lesson Review:** Each teacher should take around 10 minutes to address the following:

- What was your objective for the lesson?
- What information did you get from the pretest?
- Did this information affect your planned lesson or did it make you change your plans at all?
- Describe your instruction.
- What information did you get from the posttest?
- Is this a lesson you would normally teach at the same time as the others on your team? If not, when would you normally teach it?

The Facilitator needs to follow up on the discussion with these two questions:

1. After everyone has discussed their lesson and how they taught it, did anyone see a different way to do any aspect of their lesson?
2. Is there any reason why we should all teach the lesson at roughly the same time?

Thank everyone for their input. Collect the minutes from the recorder when they are finished finalizing the minutes.

# Our Data: Changes Following the Pretest?

Grade Level	Objective Taught	Possible Changes
<b>K</b>	Using objects, drawings, etc. to represent addition within 10.	More small groups, more pencil and paper, dot formations, and number of the week
<b>1st</b>	Students can demonstrate place value knowledge.	Play card games (gold fish style) and create a number chart mystery picture.
<b>2nd</b>	Investigate, predict, and decomposing 2D and 3D shapes.	Wanting more hands-on manipulative materials if we are all teaching it all at the same time.
<b>3rd</b>	Elapsed time.	Only one teacher found the need to change her plans based on the results of the pretest.
<b>4th</b>	ID adjectives in a sentence.	No changes were needed in planning.
<b>5th</b>	Students will divide decimals by another decimal with 80% accuracy.	No.



# Our Data: Should We Teach This at the Same Time?

Grade Level	Objective Taught	Reason to Teach at the Same Time
K	Using objects, drawings, etc. to represent addition within 10.	Helps with Title I groups, every concept builds on another, our scope and sequence already has us together.
1st	Students can demonstrate place value knowledge.	Our planning has us teaching lessons together.
2nd	Investigate, predict, and decomposing 2D and 3D shapes.	If you have standard based report cards, you are forced to teach at approximately the same time.
3rd	Elapsed time.	No. We just need to teach it as the students need it.
4th	ID adjectives in a sentence.	No. We just need to teach it as the students need it.
5th	Students will divide decimals by another decimal with 80% accuracy.	To make sure all of the subject matter is covered prior to state assessments.

# Data Collection: Prioritizing Standards

Grade level teams met in groups to discuss math standards and prioritize them based off of ILEARN Blueprints, previously designed standard based report cards (K-2), and professional experience.

Each standard was looked at and ranked as important, helpful, or supplemental. A vertical alignment chart was created.

# Our Data: Prioritizing Math

The image shows a wall covered with educational documents, primarily math standards for different grade levels. The documents are organized into sections:

- Number Sense:** Includes standards for Kindergarten, Grade 1, and Grade 2. Key standards include:
  - 1.NS.1:** Count to at least 100 by ones and tens and count on by one from any number.
  - 1.NS.2:** Write whole numbers from 0 to 20 and recognize number words from 0 to 20. Represent a number of objects with a written numeral (0-20).
  - 1.NS.3:** Find the number that is one more than or one less than any whole number up to 20.
  - 1.NS.4:** Say the number names in standard order when counting objects, pairing each object with one and only one number name and the last number name tells describes the number of objects.
  - 1.NS.5:** Count up to 20 objects arranged in a line, a rectangular array or a circle. Count up to 10 objects in a scattered configuration.
  - 1.NS.6:** Recognize one of 0 to 20 objects in presented various orientations.
  - 1.NS.7:** Identify whether the number of objects in one group is less than, less than, or equal to the number of objects in another group.
  - 1.NS.8:** Compare the values of two numbers from 1 to 20 presented as written numerals.
  - 1.NS.9:** Use correctly the words for comparison, including: one is more than and less than.
  - 1.NS.10:** Separate sets of 10 objects into two groups of 5 objects each.
  - 1.NS.11:** Develop initial understandings of place value and the base 10 number system by showing equivalent forms of whole numbers from 10 to 20 as groups of tens and ones using objects and drawings.
- Computation and Algebraic Thinking:** Includes standards for Kindergarten, Grade 1, and Grade 2. Key standards include:
  - 1.OA.A:** Understand addition as joining and subtraction as taking. For unknowns in all positions, e.g., 8 +  $\square$  = 12, 5 + 8 =  $\square$  + 4, 10 =  $\square$  + 8, and 16 = 10 +  $\square$ .
  - 1.OA.B:** Apply addition and subtraction within 20 to solve word problems involving unknowns in all positions.
  - 1.OA.C:** Understand the meaning of the equal sign (=) and determine if equations involving unknowns are true or false.
  - 1.OA.D:** Use objects, drawings, and equations to represent and solve word problems involving unknowns in all positions.
  - 1.OA.E:** Relate addition and subtraction to each other.
  - 1.OA.F:** Understand the meaning of the plus sign (+) and minus sign (-).
  - 1.OA.G:** Create, extend, and give an appropriate rule for number patterns using addition or subtraction.
- Geometry:** Includes standards for Kindergarten, Grade 1, and Grade 2. Key standards include:
  - 1.G.A.1:** Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, octagons) by their attributes.
  - 1.G.A.2:** Partition a circle, square, or rectangle into two equal halves.
  - 1.G.A.3:** Partition a circle, square, or rectangle into four equal quadrants.
  - 1.G.A.4:** Partition a circle, square, or rectangle into several equal rectangles.

Other documents on the wall include:

- PRIORITY RICH TASKS:** A chart with a color-coded header (red, yellow, green) and three rows of tasks with corresponding icons (red X, yellow pause, green checkmark).
- Math Standards Summary:** A large sheet with a grid of standards, color-coded by grade level.
- Math Standards Summary:** Another large sheet with a grid of standards, color-coded by grade level.

# Our Data: Prioritizing Math

PRIORITIZING MATH STANDARDS

	K	1	2	3	4	5
Important	9	9	10	15	16	14
Helpful	10	7	10	15	15	9
Supplemental	4	5	7	4	5	10
Total # of Math Standards	23	21	27	34	36	33

RED/PINK MEANS "STOP! PAY CLOSE ATTENTION. THIS IS IMPORTANT."

YELLOW MEANS "CAUTION—LIKELY IMPORTANT OR HELPFUL."

GREEN SIGNIFIES "GO! IT IS MAY BE POSSIBLE TO LET THIS GO—SUPPLEMENTAL."



# Our Discoveries

Eastern Elementary School is still in the early processes of learning how to utilize the PLC process to improve curriculum and instruction.

Some teachers missed the point (or it was not clearly stated) as to the important purpose of the lesson review. We are looking for best practices in lesson planning and instruction. With the current way we level our classrooms (leveling), it makes it more difficult to admit to or determine positive instructional practices and those that aren't at all.

Teachers who use SBRC found prioritizing standards easy AND they are looking forward to updating them following the cross grade level meetings. Grade levels without SBRC spent more time and felt less confident in participating in the process.

# Where We Are Heading Next?

Oh, we aren't done yet! Slow out of the gate, but ready to run!

Conclusion of 2018-19: Meet in cross grade level groups to continue to narrow down the priority math standards. Have a unit planned for the beginning of the school year for initial lesson review.

2019-2020: Use new ILEARN data to compare this year's prioritizing to new guidelines. Add language arts, science (STEM), and social studies standards into the process. More lesson reviews. Introduce peer instructional reviews.

2020-2021: Continue to review all prioritized standards. Add all specials content into the process. Continue lesson reviews and begin peer instructional reviews.

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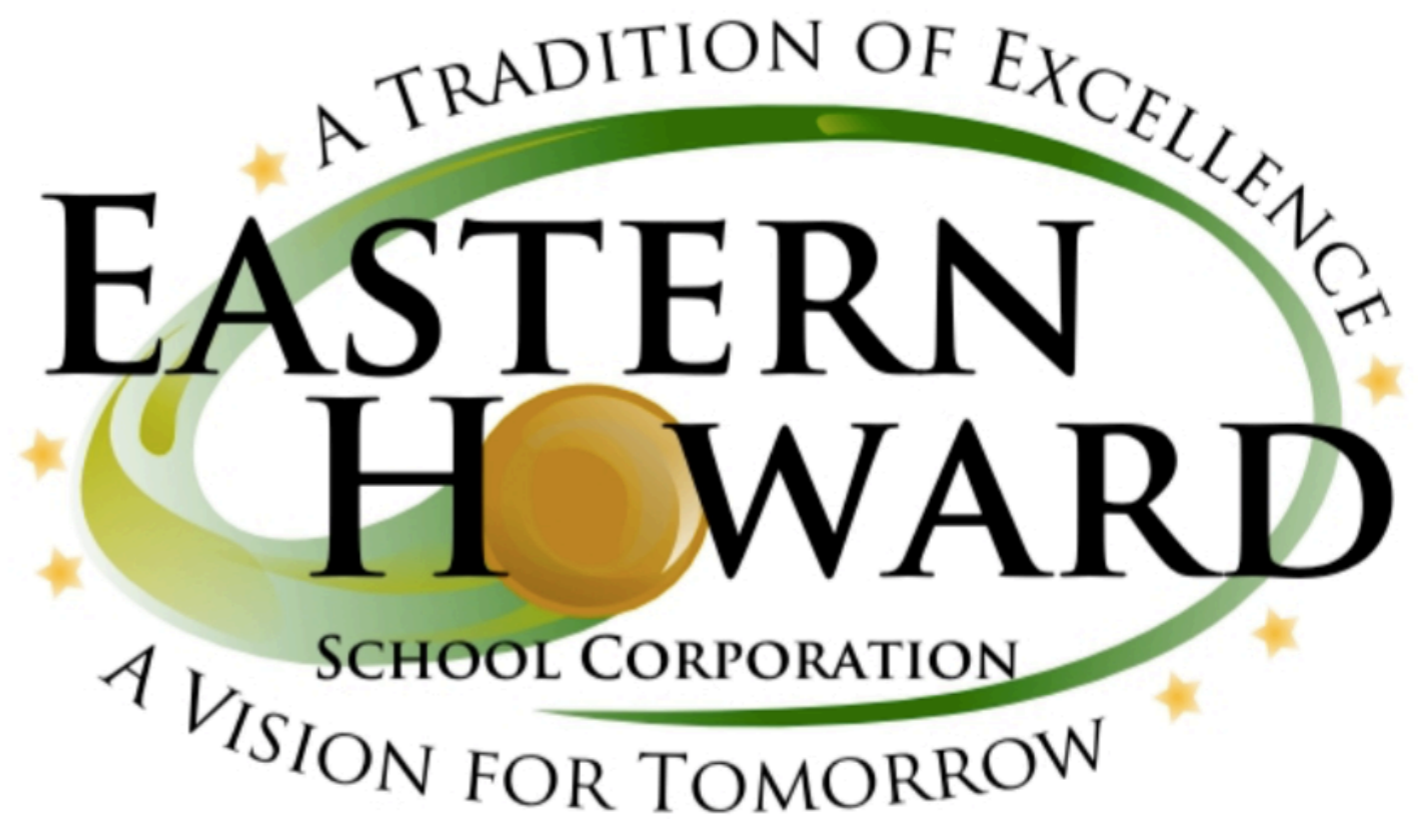
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## Using PLC's to Improve Curriculum Mapping

(Or, Introducing PLC's with Lesson Reviews and  
Prioritizing Standards)

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### **Background Leading to Our Inquiry (Slide 2)**

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### **The Purpose of Our Inquiry (Slide 3)**

1. To incorporate a professional learning format that would wake the staff back up to true curriculum discussions.
2. Lead our teachers towards prioritizing standards.
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### **Our Wondering (Slide 4)**

With this purpose, we wondered if the PLC format could help Eastern Elementary School to help create a viable curriculum based on prioritizing standards, lesson reviews, and curriculum discussions.

### **Our Actions (Slide 5)**

1. We had to educate the staff on the PLC process.
2. Perform lesson reviews. (Pretest, teach the same objective, posttest, and discuss.
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### **Data Collection (Slide 6)**

Grade level teams all chose the same lesson objective/standard to assess. After the pretest was administered, the lesson taught, and posttest administered, teams met back together to discuss the two “follow up questions” at the bottom of the agenda. Facilitators then reported back to the principal and the two teacher leaders.

**Our Data: Changes Following the Pretest (Slides 8, 9, &12)**

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