Rigor & Vigor – Conference Presentation Outline
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Defining Academic Rigor
True rigor is creating an environment in which each student is expected to learn at high levels, each student is supported so he or she can learn at high levels, and each student demonstrates learning at high levels.


What are two keys to rigorous teaching?
1) Depth of Knowledge 2) Backwards Design

Depth of Knowledge (DOK)
A tool used to categorize tasks according to the complexity of thinking required to successfully complete them.
There are 4 DOK Levels:
1) Recall & Reproduction
2) Skills & Concepts
3) Strategic Thinking
4) Extended Thinking

Backwards Design
Planning that begins with learning outcomes/targets.
✓ What do students need to know?
✓ How do we get them there?
If done properly, each lesson and activity aligns to Content Standards and Grade-level Outcomes through the meaningful use of:
1) Student Targets
2) Instructional Content
3) Formative and Summative Assessments

National PE Standards
The National Content Standards and Grade-level Outcomes for K-12 PE define what a student should know and be able to do as a result of an effective physical education program. The work of SHAPE America provides the framework for Academic Rigor in physical education.

So, what does this look like in the real world of everyday physical education?

Let’s take a look at a 4th Grade Basketball Sequence...
Organize with Partners: Basketball Sandwich
Find a partner, a spot, and a ball. Get back-2-back with the basketball in between partners making a basketball sandwich.

Dribbling Cues to Use and Remember: Finger Tips, Waist High, Eyes Up

Dribble Triathlon:
Partners take turns completing the 3 events that make up the Dribble Triathlon.
- 33 Right-Hand Dribbles (Partner 1 then Partner 2)
- 33 Left-Hand Dribbles (Partner 1 then Partner 2)
- 33 Crossover Dribbles (Partner 1 then Partner 2)

Driver’s Test
Partners take turns dribbling and grading each other’s driver’s tests. In order to pass the test you must dribble throughout the area, keeping control of your ball without interfering with other drivers. On the signal, one player will begin dribbling throughout the area at a walking pace. The partner grading the test is going to stay at the cone and watch for our 3 cues [Fingertips, Waist High, Eyes Up]. On the stop signal, drivers will return to their partners for a grade (Driver’s License or Learners Permit).

Follow the Leader (Ball Follows Leader)
On the start signal, one partner (walking without a ball) will lead a partner (dribbling a ball) throughout the activity area. On the stop signal, both partners will freeze. A point is scored if partners are close enough to give a knuckle bump.

Knuckle Collectors (1-Min Challenge Math Problem)
It’s time to see how many Knuckle bumps we can collect in two 1-minute rounds of Knuckle Collectors. On the start signal, Player 1 will stay on the home spot and give knuckle bumps to all players who dribble to them. Player 2 will dribble throughout the area collecting and counting knuckle bumps. One the stop signal, partners will switch roles. After both partners have gone, find the sum of your 2 totals. Continue doing the math in this fashion:

- What’s the knuckle sum of partner 1 & partner 2?
- Find another pair. What’s the knuckle sum of pair 1 & pair 2?
- Find another group. What’s the knuckle sum of group 1 & group 2?
- And so on until you have the class total.

Common Core Standard for Math [CCSS.MATH.CONTENT.4.OA.A.3]: Solve multistep word problems posed with whole numbers and having whole-number answers.

Debrief Question for Dribbling:
✓ DOK 1: Can you remember the cues for dribbling? (Recall)
✓ DOK 2: How would you summarize the skills and concepts you used in the activity Knuckle Collectors? (Skills & Concepts)
**Passing Cues to Use and Remember:**
Look for hands, Step to Target, Push From Chest, Thumbs Down Follow-through

**Passing Triathlon**
Partners work together to complete the 3 events that make up the Passing Triathlon.
- 10 chest passes
- 10 bounce passes
- 20 alternating passes (chest, chest, bounce, bounce)

**Passing Lane Points**
It’s time to see how many passes (bounce or chest) we can collect in two 1-minute rounds of Passing Lane Points. Partner 1 will stay on the spot. Partner 2 will dribble throughout the area collecting passes. On the signal, begin with a pass back and forth with your partner. Then dribble to an open person on a new spot and pass back and forth. Continue until you hear the stop signal, and then return to your partner to switch roles.

Some of the Academic Language covered in these activities:
Dribble, Finger Tips, Waist High, Eyes Up, Peripheral Vision, Motivation, Passing, Open Space, Practice, and Triathlon

**Debrief Question for Passing:**
- **DOK 2:** Talk with your partner about 2 positive things that she/he did in today’s lesson on dribbling and passing. Give specific examples. (Skills & Concepts)
- **DOK 3:** What nonverbal communication cues are used when passing? Can you predict the outcome of the partner passing challenges if a pair does not have good nonverbal communication? (Strategic Thinking)
- **DOK 3:** Talk with your partner. Come up with an interpretation of the saying: “Students of the Game”? Support your answer with specific examples and/or details. (Strategic Thinking)
- **DOK 4:** Using vocabulary specific to basketball, as well as your understanding of the skills and movement concepts used in the lesson, create a short inspirational “pep talk” that you could give to your partner to motivate them to practice and improve their skills. Your pep talk must include praise of your partner’s performance as well as a discussion about the enjoyment of physical activity participation. (Extended Thinking)
Did we work toward the outcomes?

**National PE Standards and Outcomes (Grade 4)**

- ✓ S1 E26.4 Combines traveling with the manipulative skill of dribbling, throwing, and catching in teacher designed small-sided practice environments.
- ✓ S2 E1.4a Applies the concept of open space to combination skills involving traveling and dribbling.
- ✓ S2 E1.4c Dribbles in general space with changes in direction and speed.
- ✓ S3 E2.4 Actively engages in the activities of physical education class, both teacher-directed and independent.
- ✓ S4.E4.4 Praises the movement performance of others both more- and less-skilled.
- ✓ S5.E2 Rates the enjoyment of participating in challenging and mastered physical activities.

**Texas Essential Knowledge and Skills for Physical Education (Grade 4)**

**Knowledge and Skills:**

- **(1) Movement.** Student demonstrates competency in fundamental movement patterns and proficiency in a few specialized movement forms. The student is expected to:
  - (K) demonstrate key elements in manipulative skills such as hand dribble.
- **(2) Movement.** The student applies movement concepts and principles to the learning and development of motor skills. The student is expected to:
  - (B) identify ways movement concepts such as time, space, effort, and relationships can be used to refine movement skills;
- **(5) Physical activity and health.** The student understands and applies safety practices associated with physical activities. The student is expected to:
  - (D) identify potential risks associated with physical activities.
- **(6) Social development.** The student understands basic components such as strategies and rules of structured physical activities including, but not limited to, games, sports, dance, and gymnastics. The student is expected to:
  - (B) analyze potential risks associated with unsafe movement and improper use of equipment.
- **(7) Social development.** The student develops positive self-management and social skills needed to work independently and with others in physical activity settings. The student is expected to:
  - (D) demonstrate effective communication, consideration and respect for the feelings of others during physical activities such as encourage others, allow others equal turns, and invite others to participate.
Common Core State Standards
Operations and Algebraic Thinking

Use the four operations with whole numbers to solve problems.

✓ CCSS.MATH.CONTENT.4.OA.A.3: Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Speaking and Listening
Comprehension and Collaboration:

✓ CCSS.ELA-LITERACY.SL.4.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

✓ CCSS.ELA-LITERACY.SL.4.1.B: Follow agreed-upon rules for discussions and carry out assigned roles.

Thank you for attending!