



COLLEGE OF EDUCATION AT ILLINOIS

# From Professional Development And Into the Classroom

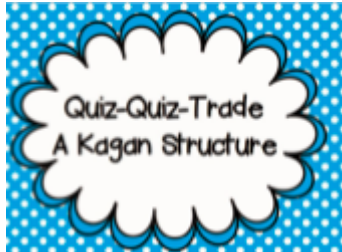
Juan M. Gerardo & Heather Winters

# Agenda

- Welcome & Agenda
- Quiz-Quiz Trade
- The Good, Bad, & the Nitty-Gritty of PD
- Lesson Part I and II
  - Additive Situations (CI 430)
  - Additive Situations (Kindergarten Classroom)
- Debriefing / Conversations About Lessons
- Keeping Equity in Mind
- General Q & A
- Wisdom from the field & Lessons learned
- Session Feedback



# Quiz-Quiz Trade



- Meet at least 5 people (that you don't know)
  - Anyone willing to share something they learned from a colleague?



# The Good, Bad, & the Nitty-Gritty of Professional Development

- Quick Write (2 minutes)
  - Describe your experience with professional development (district-wide, school-wide, conference, etc.)
    - These can be positive, negative, neutral experiences
- When time is up, you will share with those around you. (3 minutes)







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# Simulated CI 430 Lesson “Additive Situations”

# Part I: Additive Situations (CI 430)

- Juan's Professional Story
  - Undocumented for most of my K-12 schooling
  - Middle school teacher in Los Angeles, CA
  - Graduate School
    - Equity in Mathematics Education
      - Teacher-Student Relationships may help to engage Black and Latin@ student to engage with mathematics



# Part I: Additive Situations (CI 430)

- Please write a subtraction or addition word problem



# Part I: Additive Situations (CI 430)

- Compare and contrast with these story problems
  - Examples from CI 430
    - Ken has 5 Hot Wheels. Bob gave him some more. Now Ken has 12 Hot Wheels. How many Hot Wheels did Bob give him?
    - Lucy picked blueberries with her mom. Lucy gave two to her younger brother, leaving her with 6 blueberries. How many blueberries did she pick?



# Part I: Additive Situations (CI 430)

- Compare and contrast with these story problems
  - Examples from CI 430
    - Ken has 5 Hot Wheels. Bob gave him some more. Now Ken has 12 Hot Wheels. How many Hot Wheels did Bob give him?
      - *Semantic Equation*
        - $5 + [ ] = 12$
    - Lucy picked blueberries with her mom. Lucy gave two to her younger brother, leaving her with 6 blueberries. How many blueberries did she pick?
      - *Semantic Equation*
        - $[ ] - 2 = 6$



# Part I: Additive Situations (CI 430)

- Conceptual understanding of the equal sign

Given	Kids Say
$5 + 3 = 8$	Makes sense
$7 = 4 + 3$	No!
$6 = 6$	No way!
$4 + 3 = 6 + 1$	Nope

- “=” is thought of “the answer is” or “makes” or “produces”
- Should be thought of as “the same as”





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# Heather Winters' Kindergarten “Additive Situations”

# Part II: Additive Situations

## (Kindergarten Classroom)

- Heather's Professional Story:
  - Eighteen years teaching in kindergarten in the same school
  - Academics through the Arts
  - Informed by professional development
    - Multiple Intelligences
    - Thematic learning/Interdisciplinary learning





# Part II: Heather's Goals

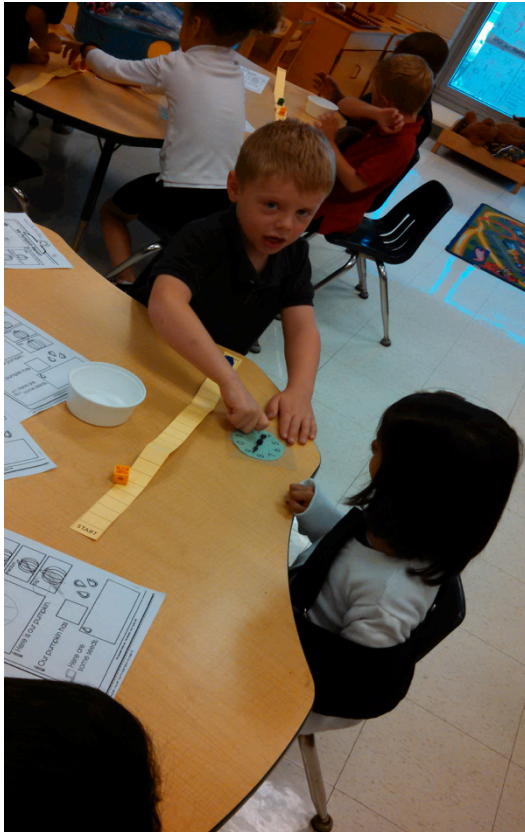
## (Kindergarten Classroom)

- Personal goal
  - Stop saying, “I’m not a math person.”
  - Facilitate students’ math thinking
- Mathematical Goals
  - To attend more closely to the various ways children solve problems
  - To focus on making math connections to the real world
- Pedagogical Goals
  - Showcasing student learning
  - Documenting the math process



# Part II: Heather's Classroom

## (Kindergarten)



# Heather's Classroom

(Kindergarten)



# Kindergarten Story Problems

- Matthew's Math Story
- Iman's Math story
- Isabella's Math Story



# Debriefing / Conversation

- Comments or Reactions
  - About the simulated CI 430 lesson
  - Heather's classroom?
  - How these connect?
- Do you have questions for us?
  - Our teaching approaches? Our Philosophies?
  - other?





# Heather's Goals for the Mathematics Lesson

- Additive Situation- Math Story Problems
  - Open ended activity which evolves in complexity over the year
  - Context problems relevant to students
  - Developmentally appropriate
  - Interdisciplinary- Math, Oral Language, Literacy, Science
- Multiple Intelligences-intrapersonal, interpersonal, visual/spatial, verbal/linguistic, and mathematical/logical
- Beneficial to ELLs



# Some Challenges of Professional Development

- Lack of Support for Implementation
- Curricula doesn't seem to be relevant
- Lack of school/classroom community
- Too much to teach...what do I teach first?
- Balancing district vs. personal professional development



# Story Problem Mathematics

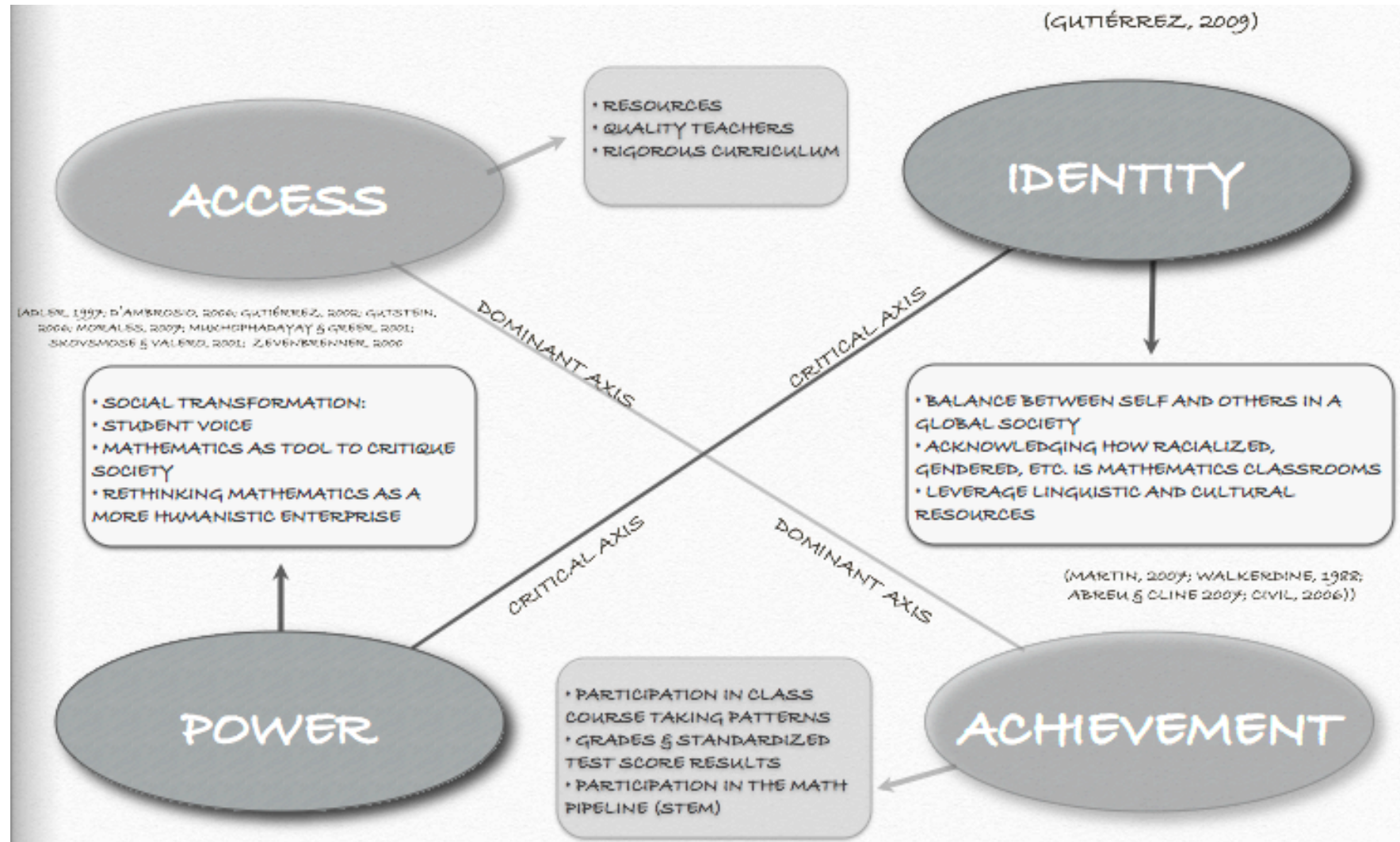
(CCSS connection)

- Mathematical Concepts
  - Cardinality & Subitizing
  - Skip counting (emergent multiplication)
  - Subtraction
  - Equivalence
- Common Core Connection
  - Counting & Cardinality
    - K.CC 1-3: Know the number names and the count sequence
    - K.CC 4-5: Count to tell the number of objects
  - Operations and Algebraic Thinking
    - K.OA 1-3: Addition & Subtraction





# Dimensions of Equity



# General Q & A

- Recall your quick-write about professional development:
  - What advice do you have?
  - What experiences do you have that you'd like to share?
  - What general questions do you have for us?



# Wisdom From the Field

(Heather Winters)

- Make a personal goal each year.
- Be reflective.
- Collaborate, collaborate, collaborate!
  - Ask for help. No one is perfect.
- Don't feel overwhelmed. Take baby steps for change.
- You are evolving and a learner for life.
- Trust your experience.



# Lessons Learned

(Juan Manuel)

- Professional Organizations
  - Learn with others
- What's your intellectual/academic passion?  
Share that with your students
  - (and have them develop theirs)
- Do what's right for students



# Contact Information

- Heather Winters
  - Email: [winterhe@u4sd.org](mailto:winterhe@u4sd.org)
- Juan M. Gerardo
  - [gerardo1@illinois.edu](mailto:gerardo1@illinois.edu)

¡Please fill out the Session's feedback form, thank you!



# Resources

- Professional Development
  - Research References
    - Linda Darling-Hammond; Pamela Grossman; Sharon Feimen-Nemser;
  - Professional Organizations
  - Math: [National Council of Teachers of Mathematics](#)
    - <http://www.nctm.org>
  - Literacy: [National Council of Teachers of English](#)
    - <http://www.ncte.org>
  - Science: [National Science Teachers Association](#)
    - <https://www.nsta.org>
  - Social Science: [National Council for History Education](#)
    - <https://www.nche.net>
  - General:
    - [Kappa Delta Pi](#)
      - <https://www.kdp.org>
    - [Phi Kappa Delta International](#)
      - <http://pdkintl.org>



# Resources

- [Multiple Intelligences \(Gardner\)](#)
  - <http://mydiscoverypreschool.org/theory-of-multiple-intelligences/>
- An [interdisciplinary approach](#) for teaching
  - <https://serc.carleton.edu/econ/interdisciplinary/why.html>
- [30 Questions for Teacher Reflection](#)
  - <http://www.edunators.com/index.php/becoming-the-edunator/step-5-reflecting-for-learning/30-questions-for-teacher-reflection>
- [More Teacher Reflection](#)
  - [http://www.idra.org/IDRA\\_Newsletter/November\\_-\\_December\\_2012\\_Actionable\\_Knowledge/Professional\\_Development\\_in\\_the\\_21st\\_Century/](http://www.idra.org/IDRA_Newsletter/November_-_December_2012_Actionable_Knowledge/Professional_Development_in_the_21st_Century/)

