Learning To Listen: Using Clinical Interviews for Professional Growth

Nicora Placa

Hunter College

NSTM 2017

Welcome
&
Introductions

16 x 25

Turn and Talk

Make a new friend!

Share your solution.

How well did you listen to your partner?

What was your goal as you were listening?

What did you learn about your partner and how they think about mathematics from listening to them?

Challenges when listening

- Listening only for the right answer
- Listening only for a particular solution path
- Thinking about the next instructional move instead of listening to the answer being given
- Assuming that students are thinking the same way you are thinking
- **Not listening for what students know**
- **Not listening for the informal knowledge students bring to the problem**

“The more you listen to students' mathematical thinking, the more you will be amazed by what students can do…”

—Children’s Mathematics: Cognitively Guided Instruction

Thomas Carpenter, Elizabeth Fennema, Megan Franke, Linda Levi, & Susan Empson

Learning to Listen:
A Journey at
Van Nest Academy

The Van Nest Academy, PS/MS 498

- Opened September 2010 with Kindergarten, 1st Grade and 6th
- Founding Principal, Carol Ann Gilligan, is current Principal
- Morris Park Section, Bronx, New York

Data/Statistics:

- **Currently, 648 Students Grades K-8 (2 classes on each grade K-5 and 3 classes on each grade 6-8):**

  66% Hispanic
  14% White
  12% Black
  7% Asian
  6% English Language Learners
  20% Students with Special Needs

- **Title I School (80% of student population is on free or reduced lunch)**
- **Share School Space with Charter School and D75 School**
- **Two Math Programs (EnVision , K-5 and CMP III, 6-8)**
- **81% of teachers have 3 or more years of experience**

Vision

We at VNA are dedicated to cultivating a community of proficient readers and writers across ALL content areas, by creating increased opportunities for students to consistently validate opinions, both orally and in writing, read rigorous text closely, use academic vocabulary in multiple settings, cull data and relevant information from multiple sources to draw valid conclusions, and, in a methodical manner, make their thinking visible.

We will also shape generations of problem solvers who confidently dissect real world tasks, both independently and collaboratively, and who can cohesively express themselves in a high school, college and career setting.

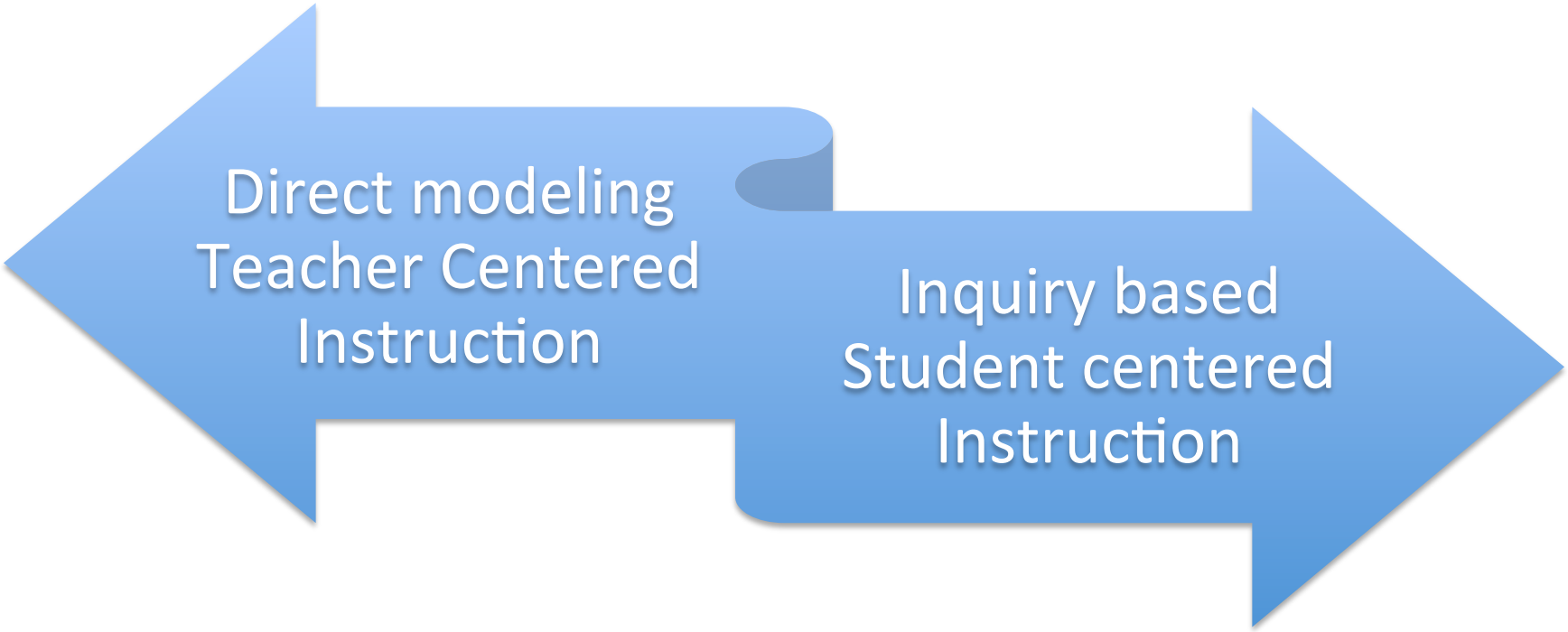
Beliefs and Understandings about How Students Learn Best

Learn by Doing
Opportunities for Inquiry
Collaboration and Conversation
Multiple Models and Entry Points
Student Choice and Voice
Real World Applications
Empowered to Take Ownership of Their Learning


students
school
environmental
education
community
Health
health
multiple
learning
provide
opportunities
Environmental
Technology
technology
problem
knowledge
information
Academy
issues
staff
Van
VNA
relevant
rigorous
rich
across
Sciences
thinking
work
help
wide
lessons
learners
closely
solvers
use
life
Nest
River
Garden
causes
medium
impact
availability
defines
range
reflect
diseases
cultivate
conclusions
real-world
readers
world
validate
collaborative
nurturing
emotionally
increased
develops
throughout
inquiry-based
compassionate
draw
areas
local
offer
human
model
locally
styles
shape
content
science
research
college
writing
College
isolation
Botanical
setting
accessing
medical
vocabulary
philosophy
cull
K-8
environment
tools
providing
shaping
categories
physically
Recognizing
Learn
researching
required
become
Serve
solve
mind
meaning
play
socially
role
generations
stewardship
tasks
primary
makes
think
dynamic
consistently
goal
project-based
belief
Medicine
dedication
recognize
technological
express
collaboratively
Einstein
develop
creating
partnerships
overcome
proficient
talents
within
inclusive
career
need
Report
valid
instrument
disciplines
empower
taught
skills
infused
sources
dissect
committed
people
orally
close
armed
diverse
face
text

What was happening?

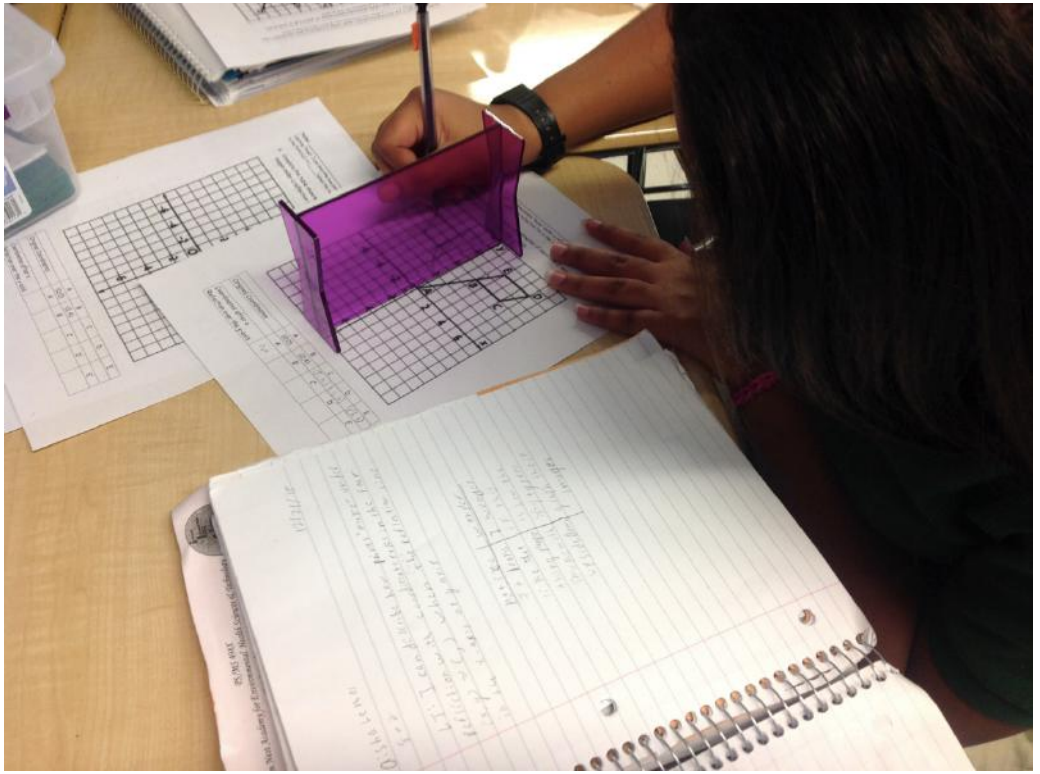
Disconnect between vision of the school and what was occurring in classrooms



VNA decided to bring in a coach

What did we try?

1. Individual classroom coaching
2. Workshops/PD
3. Inter-visitations



What happened?

- In observations, we noticed teachers were still struggling with HOW to make the vision come to life in their classrooms
  - Students' ideas were not valued
  - Deficit-based approach to thinking about students:

    "They can't multiply!"

    "They can't solve word problems"

    "They aren't all ready for rich tasks. They need to learn the basics first."

What else happened?

- The learning that was occurring in individual coaching sessions wasn't being generalized to the department or to other lessons
- Teachers weren't learning from one another

Beliefs and Understandings about How Students Learn Best

Learn by Doing
Opportunities for Inquiry
Collaboration and Conversation
Multiple Models and Entry Points
Student Choice and Voice
Real World Applications
Empowered to Take Ownership of Their Learning

Is this also true for teachers?

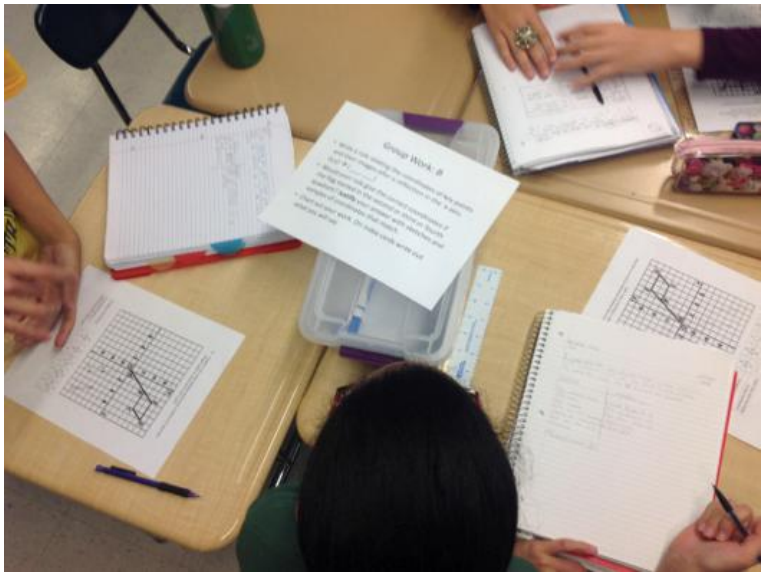
Turn and Talk

Think about the learning opportunities you experience as a teacher or that you provide for teachers. Are they consistent with these beliefs? Why or why not?

Design Principles

- Use what we know about our teachers to create learning opportunities
- Build upon their knowledge (asset vs. deficit based approach)
- Meet them where they are
- Assume that individuals do things that make sense to them and try to figure out why

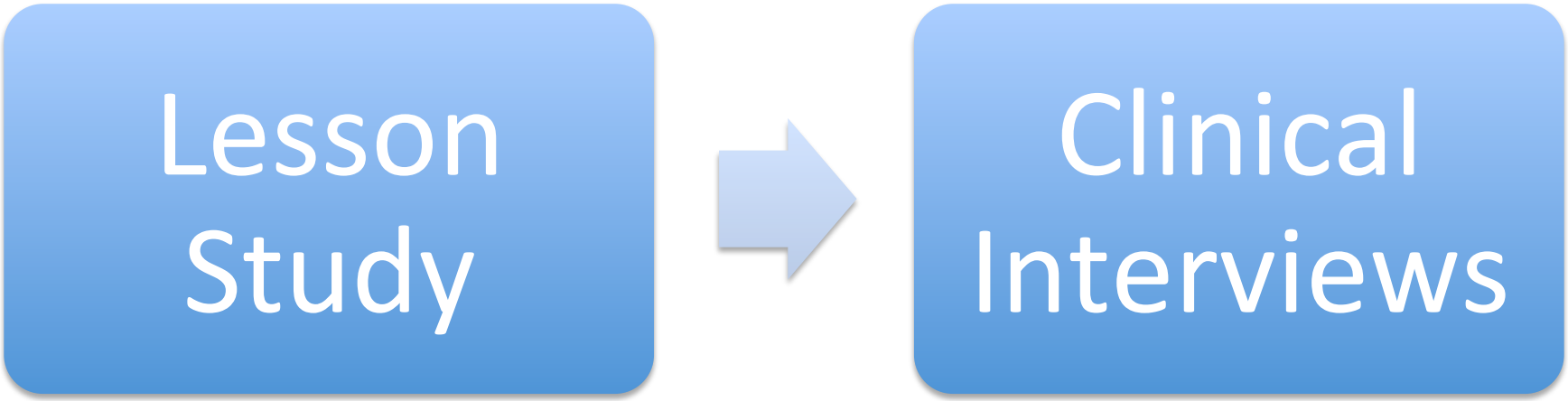
Lesson Study



What did we learn from Lesson Study?

- Observing and listening to student thinking during the lesson study was so valuable
- Putting ourselves in the mind of a child helped us plan better
- We needed practice analyzing student thinking
- We needed practice building on students' mathematical ideas

Professional Learning Plan



Clinical Interviews

Created opportunities for teacher team learning through

- Selecting Tasks
- Anticipating misconceptions
- Doing math together
- Analyzing Student responses

What are they?

- Clinical interviews are used to gather information about how a student is ***thinking.***
- They are not designed to be teaching sessions, rather they are to ***gather as much information*** as possible about student thinking.
- They require ***flexible questioning*** in order to determine what the student is thinking that is producing the behavior

How do we decide what to ask about?

- Before starting a new topic
  - What do students already know?
  - What intuitions do they have?
- During/After a topic
  - Why are students struggling with a particular question?
  - What do they really understand about the content?

When do we do this?

- Common planning
- Department meetings
- During class

Interview Questions

- How do you know?
- How did you figure that out?
- Why did you ____? (write that, draw that, …)
- Tell me more about it.
- What are you thinking?
- You wrote ____. How did that help you?
- Why did you change your answer?
- Are you right? How do you know?

Interview Questions

- I noticed that you stopped what you were doing just now. What were you thinking?
- I don't know what you mean by that. Will you show me?
- Can you tell me (show me) what _____ means?
- What do you notice?
- What do you wonder?
- Is there another way to show me? What is it?

Questions/Statements to Avoid

- What if you….?
- Why don’t you try…?
- What you did (or wrote) is another way to say….
- Oh, I see what you did. Did you…?
- What do you remember from class yesterday?

Analyzing student responses

- Assume that what students are doing makes sense to them and try to figure out why!
- Don’t assume they are thinking the same way you do!

What to Look for/Listen for in a student's explanations

- What models does the student use to think with?
- What kind of reasoning does the student use?
- In what way(s) do the student's explanations **make sense**?
- What misconceptions do you notice the student has?
- What informal knowledge or intuition does the student bring to the problem?

How we learned together

- Background reading/Book study
  - Children's Mathematics Cognitively Guided Instruction
- Watched videos of clinical interviews
- Practiced as a group
- Practiced individually
- Summarized and shared what we learned

Video #1

- 6^{th} grade
- They were starting a new unit and wanted to see what students already knew

-3 +5

-10 + -2

Video

- Pay attention to:
  - What do you think the student understands?
  - What do you think the student does NOT understand?
  - The questions the interviewers asked.

Video

Turn and Talk

What do you think the student knows ?

What did you notice about the questions the interviewers asked?

Video #2

- Team wanted to look at a state test question that students struggled with

Residents of a small city voted on whether to allow a developer to build a shopping center. The number of votes in favor of the shopping center was 4,400. The number of votes against the shopping center was 17,600. What percent of the voters were in favor of building the shopping center?

Video #3

- Mr. Licari and 6 of his teacher friends went out to a fancy dinner on Friday night. Their total bill at the end of the night was $581.00. If everyone decided to pay an equal amount, how much should each person pay?

Turn and Talk

What do you think the student knows about division?

What did you notice about the questions the interviewers asked?

What did we learn?

- Hearing what students think surprised us. Just looking at their work wouldn't show us what they DO understand
- Misconceptions that we couldn't anticipate emerged

What did we learn?

- Some students seemed to enjoy having attention during the interviews. This might help build their confidence in problem-solving.
- Seeing how students start solving the problem and persevere is interesting.
- Some students were stuck at different points. It might be helpful to have them do a notice/ wonder after some wait time.

Reflect

- What are the advantages/disadvantages of the clinical interview?
- How might you use clinical interviews in your schools?

Final thoughts

- If we believe learning occurs by doing, we need to create opportunities for this type of learning to occur in our teacher teams. Clinical interviews are one way to create these opportunities.
- Students have valuable informal ideas about math we need to listen to them and then help them build upon them.
- Assume that what students are doing makes sense to them and try to figure out why.

Questions/Comments???

Contact Information:

- Email:
  - nicora.placa@gmail.com
- Twitter: @nicoraplaca
- Blog: www.nicoraplaca.com