Place Value Understanding: Seems So Easy, But Is It?

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We need 3-5 volunteers. You will need to UNMUTE during certain parts of the session and speak.
Place Value Understanding: Seems So Easy, But Is It?

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Jenny Ainslie - Present
Jessica Hunt - Chat support
Valerie Faulkner - Present
Place Value Understanding: Seems So Easy, But Is It?

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The Purpose of this Activity

- To put you in your “student's shoes”
- Think about the connection between your instruction and deep levels of learning
- Who's fault is it?

Do the best you can until you know better. Then, when you know better, do better.

Maya Angelou
The Rights of the Learner

- The Right to Be Confused
- The Right to Claim a Mistake
- The Right to Speak, Listen, and Be Heard
- The Right to Write, Do, and Represent Only What Makes Sense to You

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Volunteers ONLY: Please UNMUTE

Everyone else: Play along at home!

Either say out loud or mouth the responses
EVERYONE MUTE please
Poll: thoughts & feelings

Which of these statements captures how you are currently feeling?

We encourage you to use the chat box to elaborate on your experience. How might your feelings connect to your students’ feelings?

1. Confused/Frustrated
2. Having trouble connecting symbol and language
3. Starting to shut down
4. Starting to understand
5. Able to connect between language and numerals
6. Complete clarity
7. This is fun!
Volunteers ONLY: Please UNMUTE

Everyone else: Play along at home!

Either say out loud or mouth the responses
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- How would you write the numeral for what comes next?
- How would you explain to someone what that numeral means?
- What name would you give this new numeral and why?
Subitizing!

How many dots do you see?

Make sure to use precise base six language (“One group of six and three”)
Key Ideas: The Power of Subitizing

- Numbers are composed of other numbers
- Different forms of the same value (equality)
- Visual connection to the structure of the system
- Break apart to make a base group (six, in this case)
Which *numeral* represents the given quantity?

*(still in Base Six)*
What if I add 1 more?
What if I add 1 more group of 6?

“Six more”
EVERYONE MUTE please
Breakout Rooms

Main Room - Quiet Room

Breakout Rooms - find some new friends to work together
Virtual Manipulatives


https://tinyurl.com/NCTMAug31
Try these problems!
In Base Six

1. \(5 + 3\)
2. \(14 + 3\)
3. \(24 - 5\)
4. \(5 \times 2\)
5. \(4 \times 3\)
6. \(24 \div 4\)
7. \(23 \times 5\)
8. \(14 \times 32\)
9. \(30 \div 3\)
10. \(320 \div 23\)
Use of Various Manipulatives
If you recall.... Purpose of the Activity

- To put you in your “student’s shoes”
- Think about the connection between your instruction and deep levels of learning
- Who’s fault is it?
Reflection

- If you didn’t have the virtual manipulatives, what strategies might you use/rely on?
- Would those strategies lead to efficient computation?
- When thinking about computation, what was the cognitive demand when solving?
- What was helpful in your learning process?
Poll: thoughts & feelings

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6. Complete clarity
7. This is fun!
How might we take the base six understanding and apply it to our instructional choices in base ten?
Thank you!

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