You See, But You Do Not Observe:
Focusing Third Graders' Scientific Observation-Making

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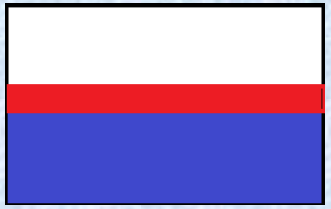
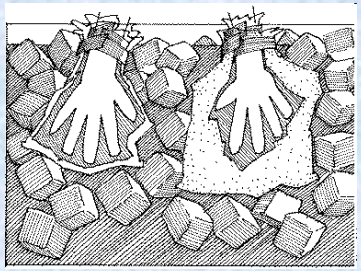
DeLeT Cohort 8

Research

- Three Lessons
  - Salinity and Density
  - Temperature and Density
  - Blubber





- Lesson Plans
- Video Tape
  - My Introduction to the Lesson
  - Student Work

Comment Types

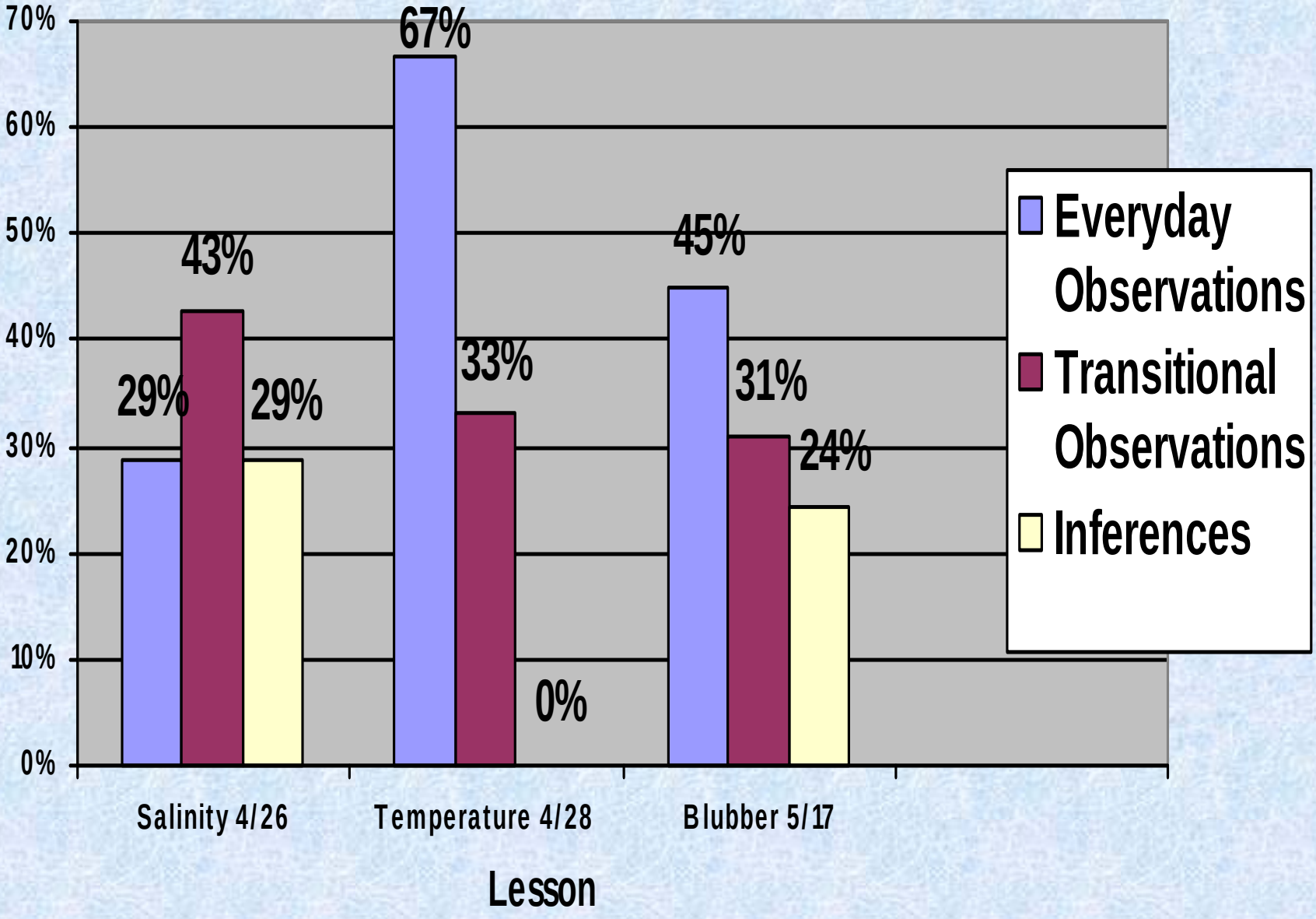
1. Everyday Observations (Eberbach and Crowley, 2009)
   - "That's bright red!"

2. Transitional Observations (Eberbach and Crowley, 2009)
   - "The red is much more dense."

3. Inferences (Hanuscin and Park Rogers, 2008)
   - "This is like a swimsuit for when you go scuba diving."
   - "The opposite colors all sank."

In what ways can I support the transition from students' everyday observations to more scientific observations and inferences?

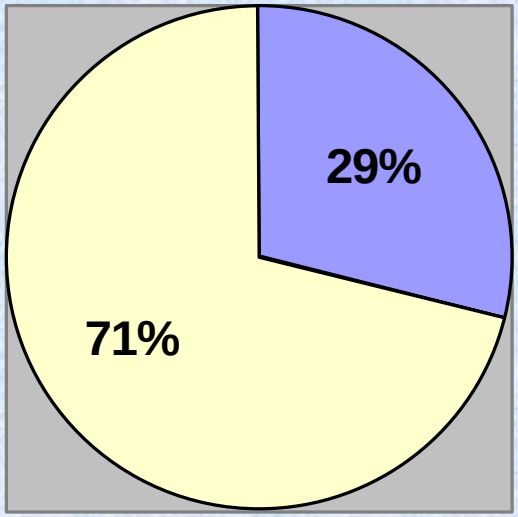
Student Comment Types



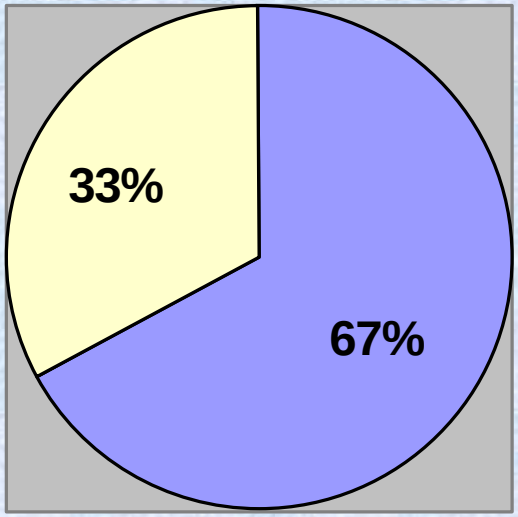
- Non-scientific
  - Everyday Observations

- Scientific
  - Transitional Observations
  - Inferences

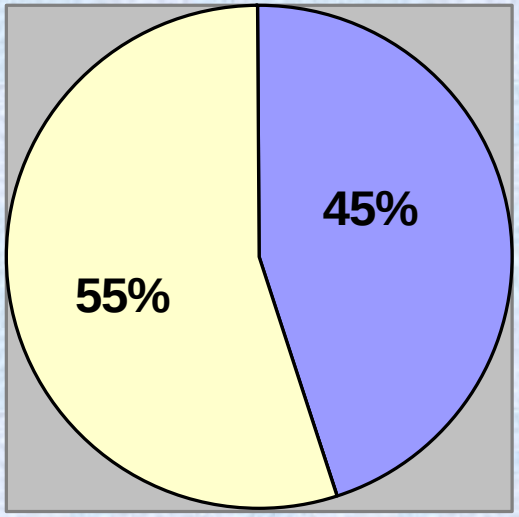
Salinity



Temperature



Blubber



Findings

1. Type of Focus Question

2. Small Group vs. Whole Class

3. Experiment Complexity

Significance

1. Focus question
    - -Specific language
    - -Key Words
2. Small Group
    - -Discussion time
    - -Everyone talks
3. Complexity
    - -Different steps
    - -Small details

What Next?

- How do I help my students notice the difference between everyday and transitional observations?

- “A Lemon of a Lesson” (Minogue, 2008)
- What value is there in everyday observations?

Sources

"From Everyday to Scientific Observation: How Children Learn to Observe the Biologists World."

Eberbach, C. & Crowley, K, E., (2009).

"Learning to Observe and Infer."

Hanuscin, D, & Park Rogers, M. (2008)

"A Lemon of a Lesson."

Minogue, J., (2008).