

The logo for 'ARTFUL THINKING' is centered on the slide. The word 'ARTFUL' is on the top line, with 'A' in blue inside a yellow circle, 'R' in orange, 'T' in orange, 'F' in green, and 'U' in green. The word 'THINKING' is on the bottom line, with 'T' in yellow inside a purple square, 'H' in orange, 'I' in orange, 'N' in orange, 'K' in orange, 'I' in orange, and 'G' in orange.

ARTFUL THINKING

Program overview and research highlights

Shari Tishman & Patricia Palmer

Harvard Project Zero

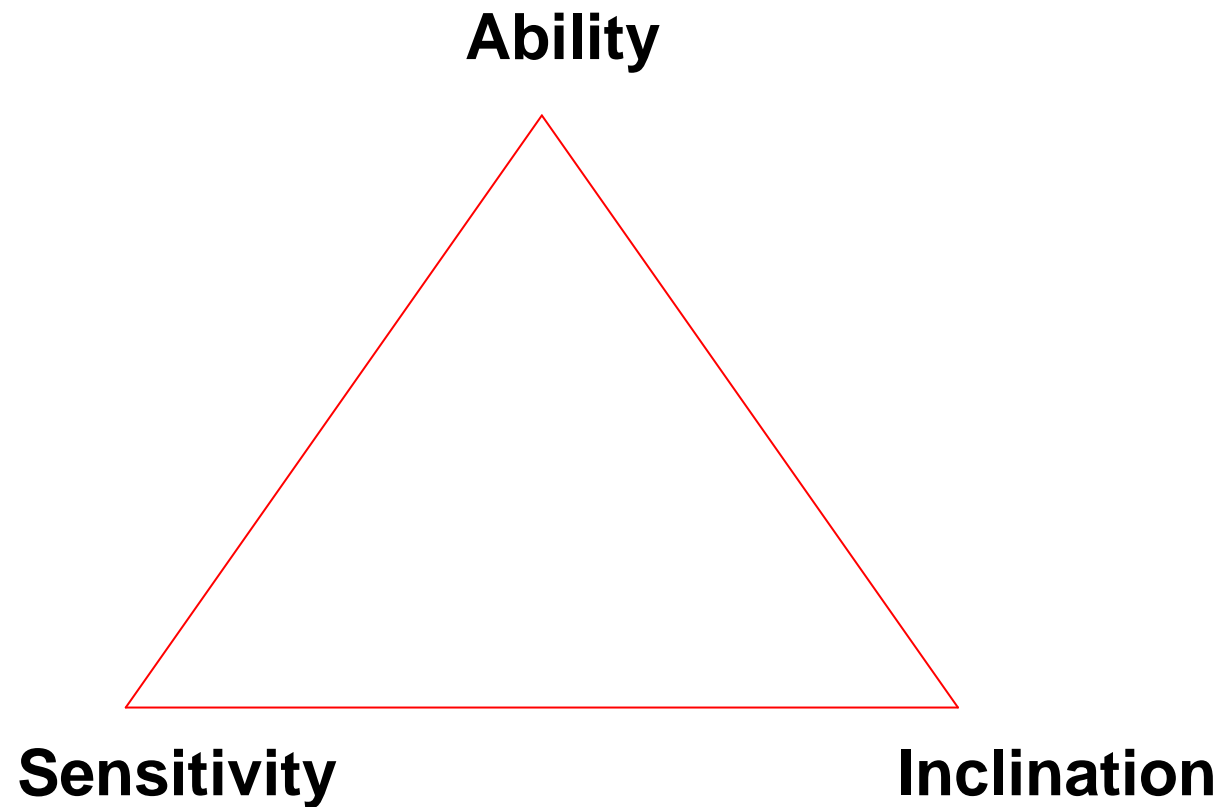
Artful Thinking...

- Focuses on looking at and interpreting art, rather than making art.
- Used by K-12 classroom teachers in all subject areas, as well as by art specialists.
- Two goals: (1) To help teachers create rich connections between works of art and topics they are teaching; (2) to use the power of art as a force for developing students' thinking dispositions.

3 Key Elements

1. thinking dispositions
2. Thinking routines
3. Art & curricular connections

Research background: The triadic theory of dispositions





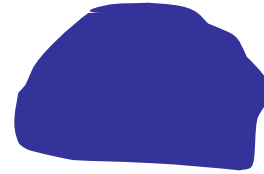
Which thinking dispositions?

Artful Thinking Palette

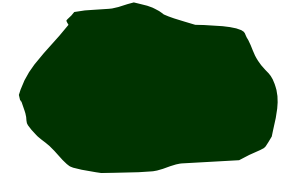
Reasoning



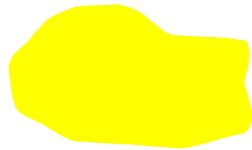
Questioning & Investigating



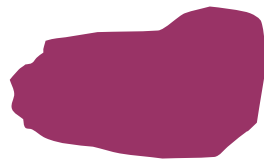
Observing & Describing



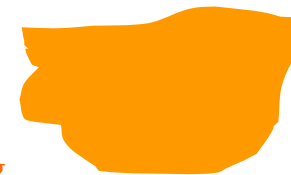
Exploring Viewpoints



Finding Complexity



Comparing & Connecting





How do dispositions develop?

By routinely engaging in specific patterns of behavior – by doing certain things regularly



Thinking Routines

Short, easy-to-learn procedures that help students engage in thinking-dispositional behavior in and across the six areas of the palette

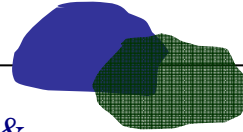
Reasoning



Claim-Support-Question

- Make a **claim** about the artwork or topic
- Identify **support** for your claim
- Ask a **question** related to your claim

Questioning &
Investigating



Observing & Describing

See-Think-Wonder

- What do you see?
- What do you think about that?
- What does it make you wonder?

Sample curricular connections

- Plants
- Population density
- Colonial America
- Humor in Language
Arts
- Genetics



Conceptual Change: 2 Studies

- Students' and teachers' concepts of art
- Students' concepts of thinking

Concepts of Art

“I used to think...”

“Now I think...”

2 groups:

- 85 students (5th, 6th 9th grade)
- 26 teachers

Student Shift

I USED TO THINK...

Art is not engaging



NOW I THINK...

Art invites inquiry

I thought when you looked at a painting or a sculpture what you saw was the whole picture and nothing was the center of interest or thought provoking (10)

I used to not pay attention to detail and the mood of the artwork or music. I would look at the artwork superficially, only paying attention to what was right in front of my face such as the color. I never delved deeper into what the artist was trying to get across. (14)

Art can have many questions in it (10)

Art is very complex and there are a lot of observations you can make and there are a lot of view points in art (11)

Now I think that every picture or song has a message, a hidden meaning, that exists within the pictures. You just have to take the time to find it....It's not just a picture it's a symbol for something more. (14)

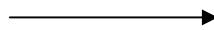
Teacher Shifts: Art and the curriculum

USED TO THINK...

Art is not centrally
connected to the curriculum

Art is just for art class

Art is motivational or
instrumental



NOW I THINK....

Art connects meaningfully
to the curriculum

Art helps students think
and learn

I used to think that it was the art teacher's responsibility to expose students to art. Now I think richer more-in-depth discussions result when using art as opposed to not.

I used to think it had token use- nice but not truly useful. Now I think I can help students think more deeply, ask more questions, understand connections, and deepen knowledge.

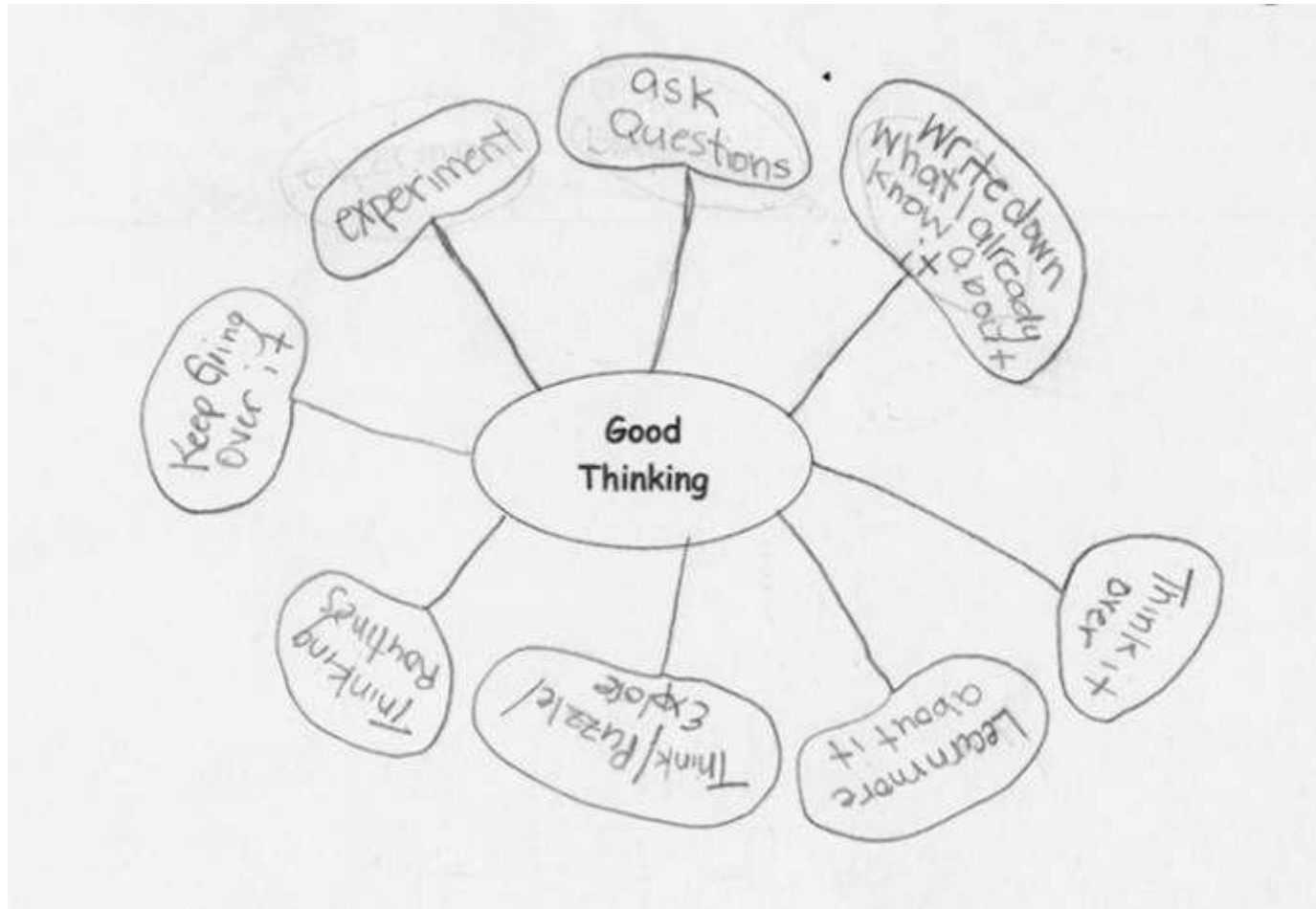
Broad characterization of conceptual shifts, students and teachers

Art is... simple, one-dimensional, bounded, “other”

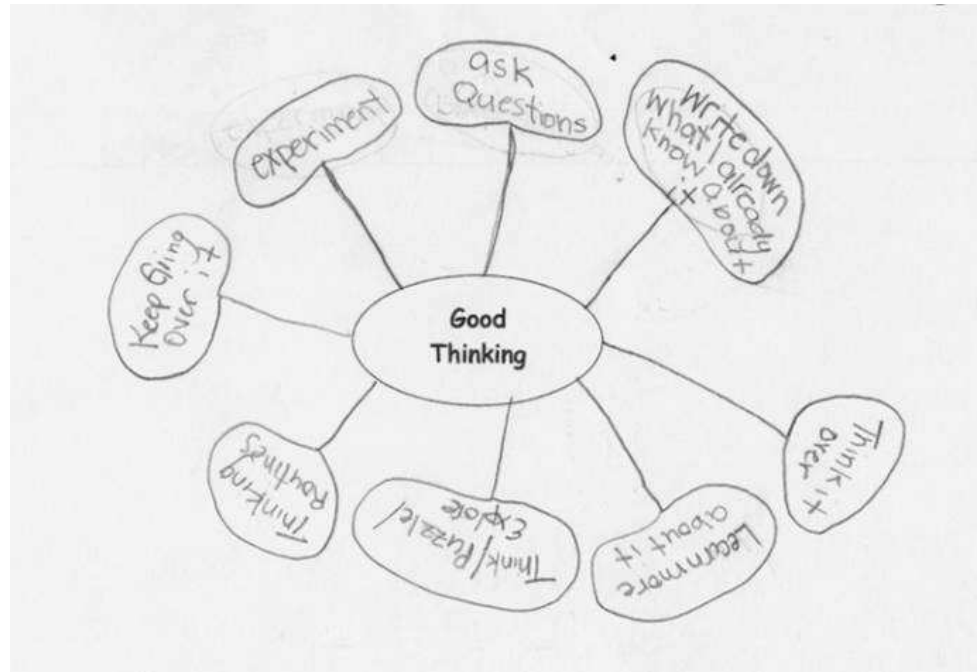


Art is... Complex, multi-dimensional, has multiple meanings and contexts, cognitive, personal, integrated

Student Concept Maps



Student Concept Maps

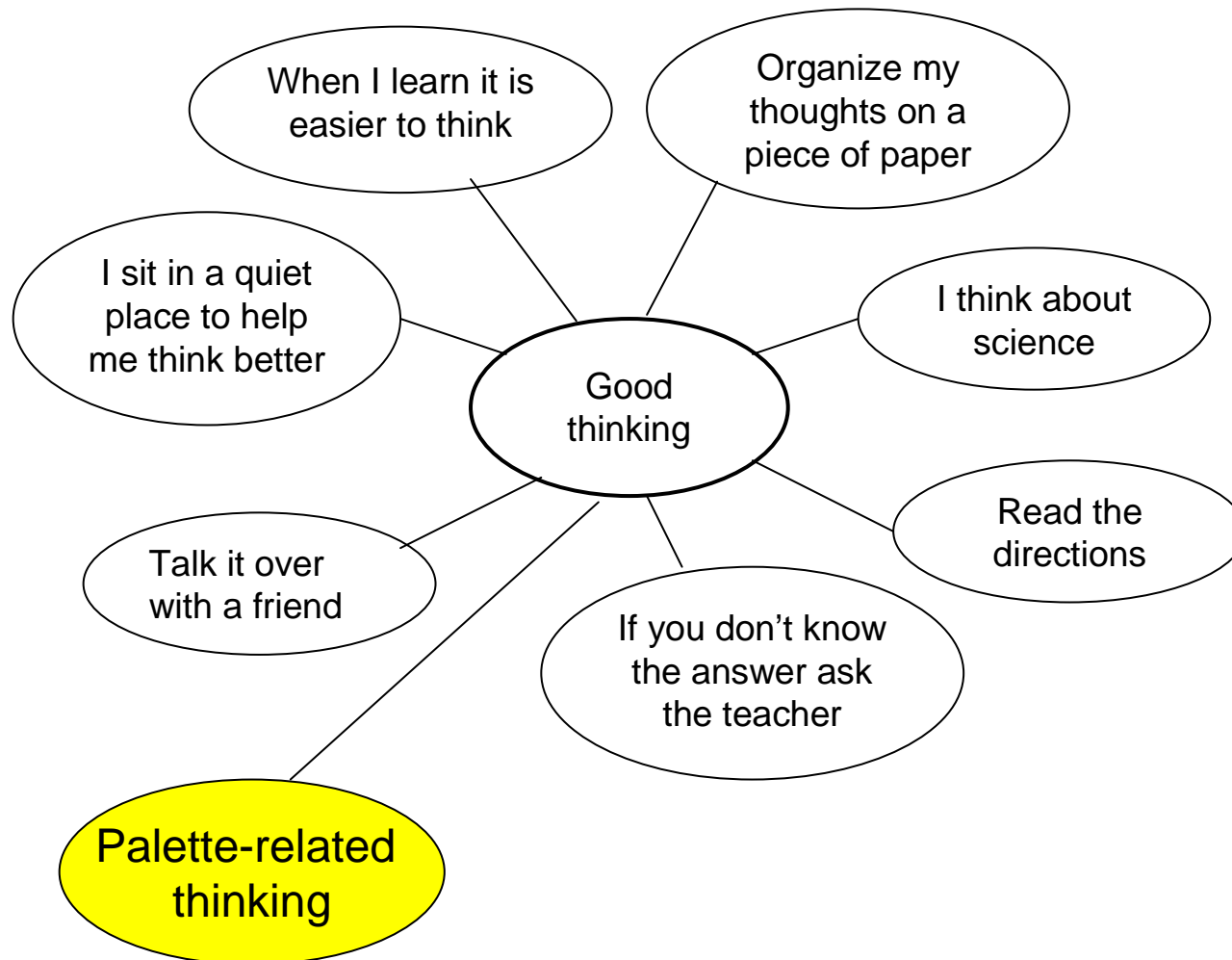


Quasi-experimental design N= 359

Concept map used 3 times over 1.5 years

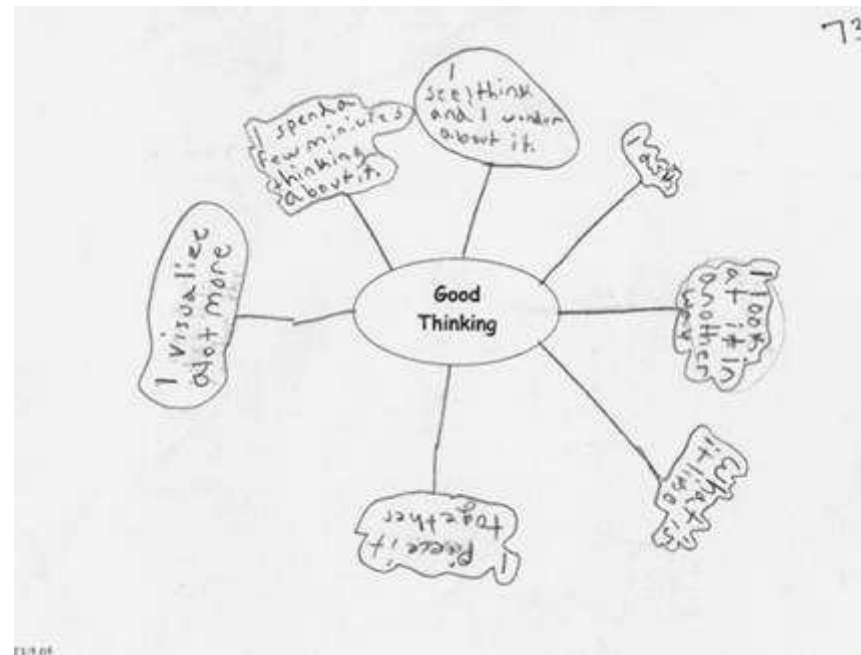
3 groups (in both experimental and control): 4th-6th grade

Constructed map, representing all main categories

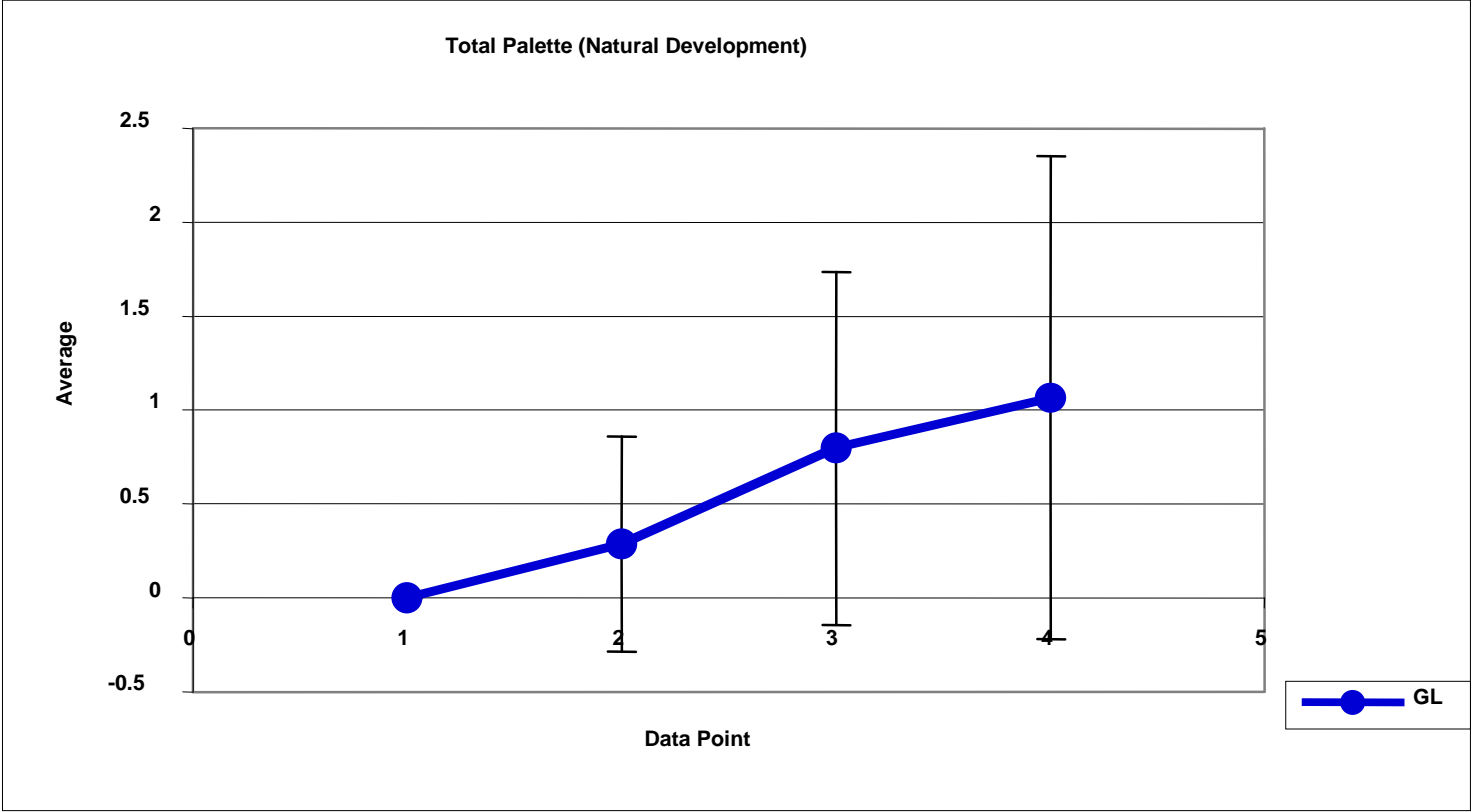


Palette-related thinking

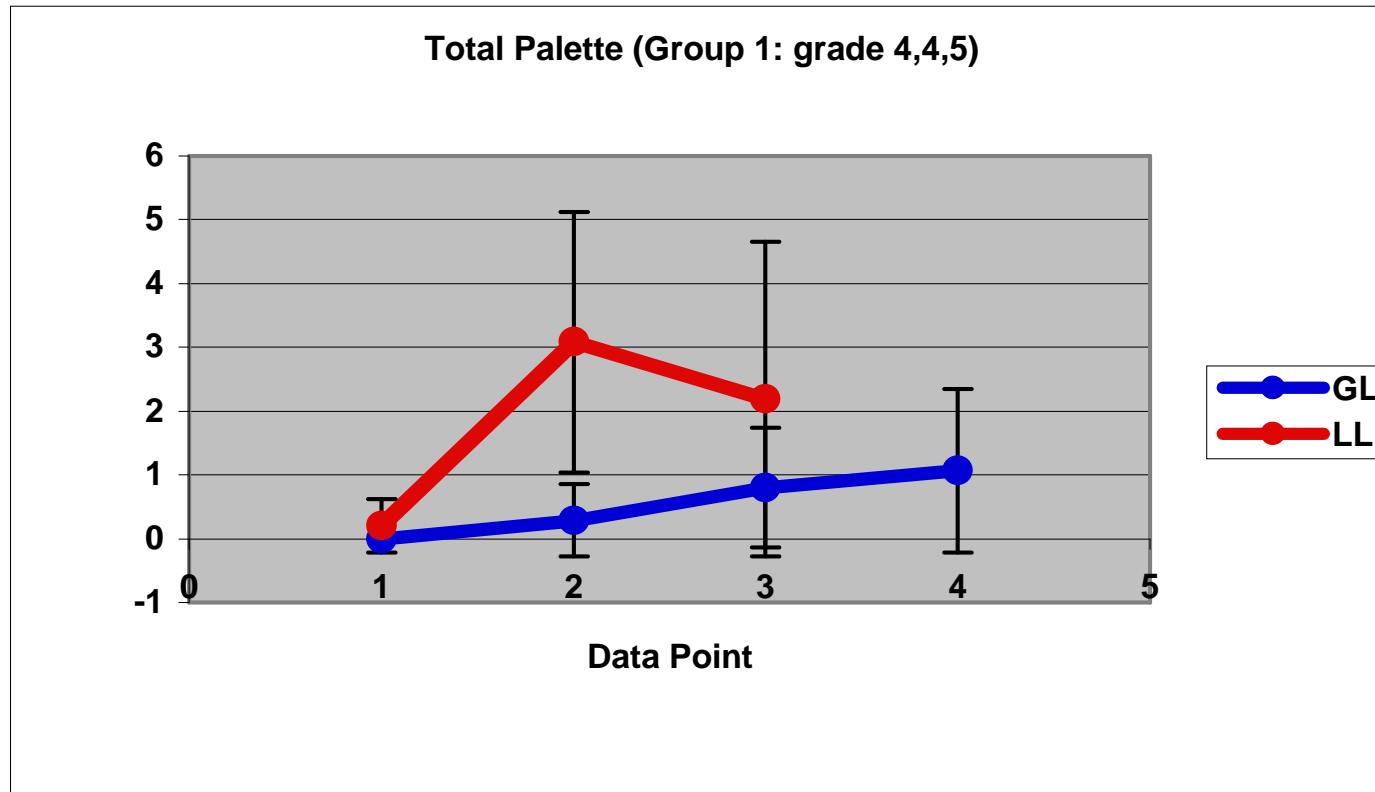
- **Observing & describing:** Make observations; use words to describe.
- **Reasoning:** I see if my answer is reasonable; see if I can find a way to prove it
- **Questioning & investigating:** Ask questions; [ask] what you wonder.
- **Comparing & Connecting:** Think of something similar; compare something; think about past experiences.
- **Exploring viewpoints:** I look at it in different ways; Always think of a different way of putting it. I think how it felt then.
- **Exploring complexity:** Break the sentence down; break into sections; Take little ideas and make it into a bigger one
- **Multi-palette:** Explain your thinking, try different ways to figure out the question, Think about brainstorming to explore different answers



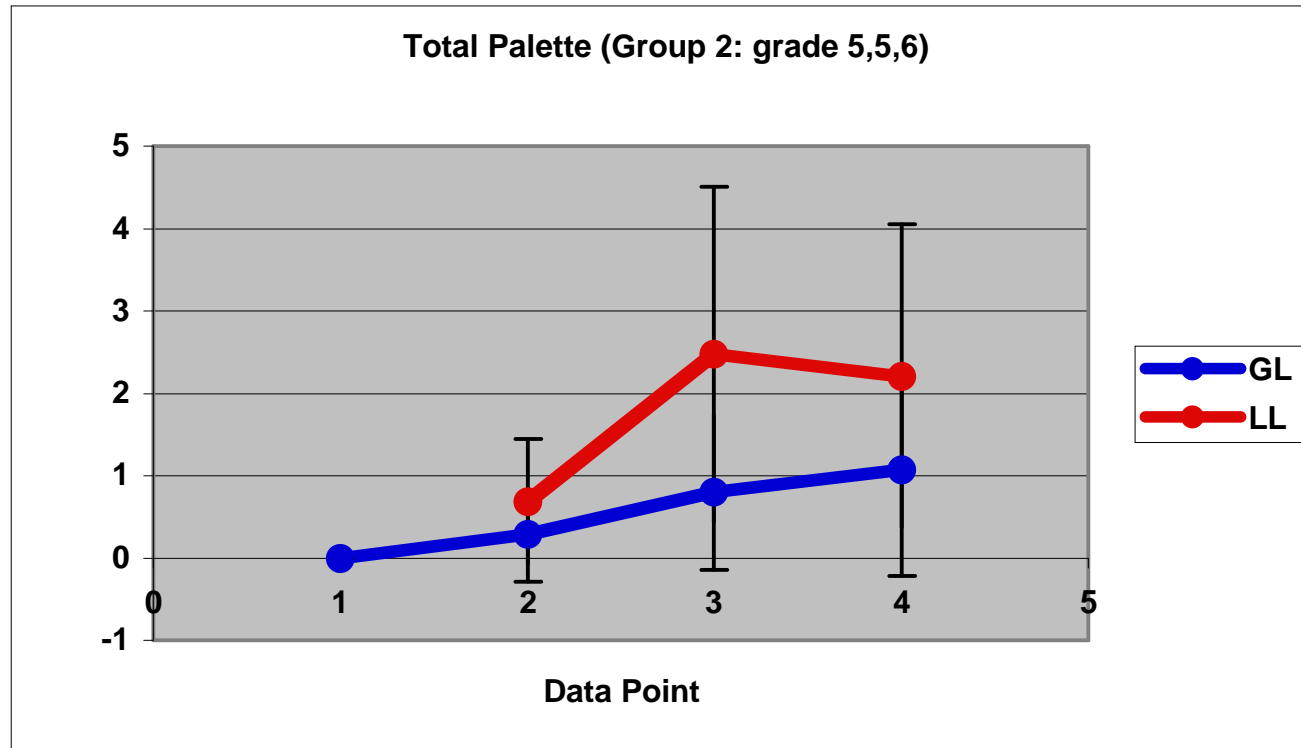
Total palette: Natural development



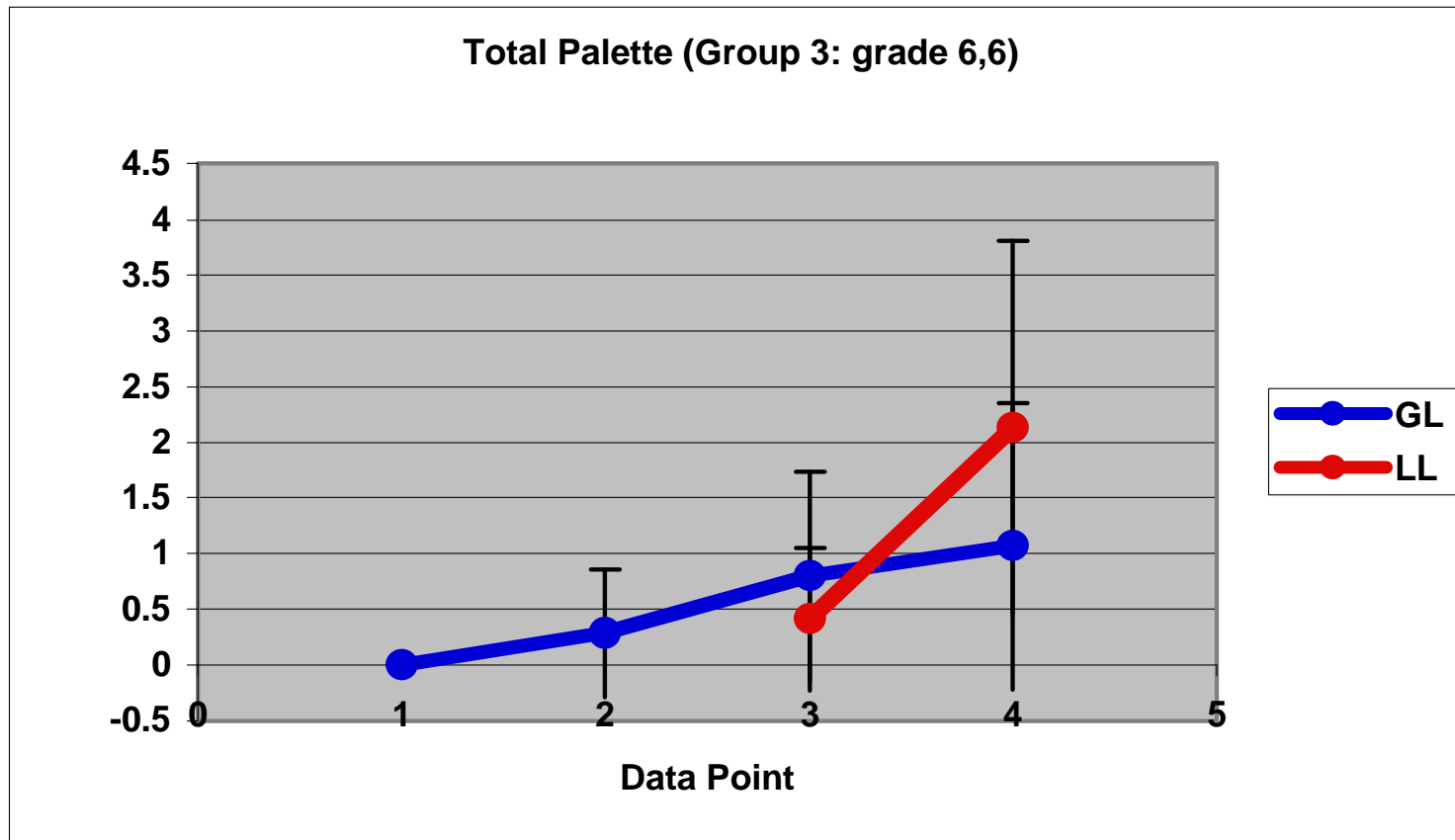
Comparative: 4th, 4th, 5th



Comparative: 5th, 5th, 6th



Comparative: 6th, 6th



Key Points

- Both groups have a robust variety of ideas about good thinking
- Both groups have some palette-related ideas: shows that palette is “natural.”
- AT seems to dramatically accelerate palette-related ideas early on, then may level off.
- Concept maps an indication of cognitive sensitivity rather than ability

Looking across the 2 studies

- No big surprises. Evaluation activities should maintain a close connection to the goals of a program.
- “Impact” is likely increased with a deep, rich, and expansive conception of art, along with instructional approaches that let artworks “work.”

“Now in class when we look at art ... we think more specifically and really discover what this artwork makes us feel and want to know and learn.” (age 11)



ARTFUL THINKING

<http://www.pz.harvard.edu/at>

For curriculum connections:

http://www.pz.harvard.edu/at/cc_intro3.cfm