

Messing About With Documentation



Using Pedagogical Documentation to Support Young Children's Thinking Processes

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The Provocation



The Role of Pedagogical Documentation in Developing Young Children's Thinking Processes

Dissertation Research, Leslie
Sevey

Overview of the Study



The study investigated the use of pedagogical documentation and the kinds of thinking processes that occurred when children interacted with pedagogical documentation in a kindergarten classroom where the teacher was applying the principles of the Reggio Emilia Approach.

Pedagogical Documentation



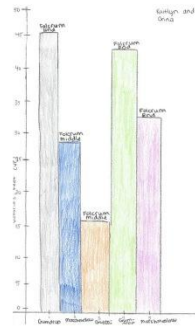
NAEYC Standard 4. Using Developmentally Effective Approaches

4b. Knowing and understanding effective strategies and tools for early education, including appropriate uses of technology.
4c. Using a broad repertoire of developmentally appropriate teaching/learning approaches.

In ECE 429: Early Childhood Science and Social Studies, teacher candidates are engaging first-hand in inquiry based science in order to develop the skills and strategies of effective teaching. According to the NSES Science Teaching Standards, "Teachers of science guide and facilitate learning by focusing and supporting inquiry while interacting with students" (2004, p. 29). In order to understand how to support inquiry, teacher candidates are provided with an opportunity to engage in an inquiry-based focused exploration about simple machines.



Teacher candidates used the inquiry process to predict, explore, observe, record, and develop conclusions.



Weight and Data
Name: Kaitlyn and
Date: 1/2/2014

1. How far can you drop the quiddrop in a glass?
2. How far can you drop the quiddrop in a glass?
3. How far can you drop the quiddrop in a glass?

Answers: I think the gum drops will go further. The plastic will be opposite each from the cup. The marshmallow will be really close to the distance the quiddrop traveled.

① white quiddrop: fulcrum end = 4.5 g
② marshmallow: fulcrum middle = 4.5 g
③ orange quiddrop: fulcrum middle = 1.5 g
④ green quiddrop: fulcrum end = 4.2 g
⑤ marshmallow: fulcrum end = 3.2 g

quiddrops will go further than marshmallows, especially when the fulcrum ends of the end of the tube collapse the cup.

Pedagogical documentation is often described as “samples of a child’s work at several different stages of completion; photographs showing work in progress; comments written by the teacher or other adults working with children; transcriptions of the children’s discussions, comments, and explanations of intentions about the activity; and comments made by parents; observations, transcriptions of tape-recordings, and photographs of children discussing their work can be included” (Katz & Chard, 1996, p. 2).

Conceptual Framework



- Reflection, essential to critical thinking, requires the use of memory.
- Memory, in the young child, is often mediated by an external cue.

Research Questions



1. What kinds of thinking processes occur when children interact with pedagogical documentation?
2. As the children gain more experience with pedagogical documentation will the children independently use the pedagogical documentation to support their inquiry and ideas?

Conclusions



Results – Thinking Processes

- Memory
- Reflection
- Critical Thinking
- Metacognition

Conclusions



Results - Role of the Teacher:

- The effectiveness of the use of pedagogical documentation appears to be dependent on the role of the teacher
- Pedagogical documentation should be introduced along the way as part of the teaching and learning process

Implications



- Teachers must help children develop an understanding about the use of pedagogical documentation as a mental tool
 - Used as ‘bits and pieces’ along the way
 - Facilitate and model the use of the pedagogical documentation

Messing About With Documentation



Use bits and pieces to bring the children's work back to them to encourage reflection and critical thinking.

Videos As Documentation

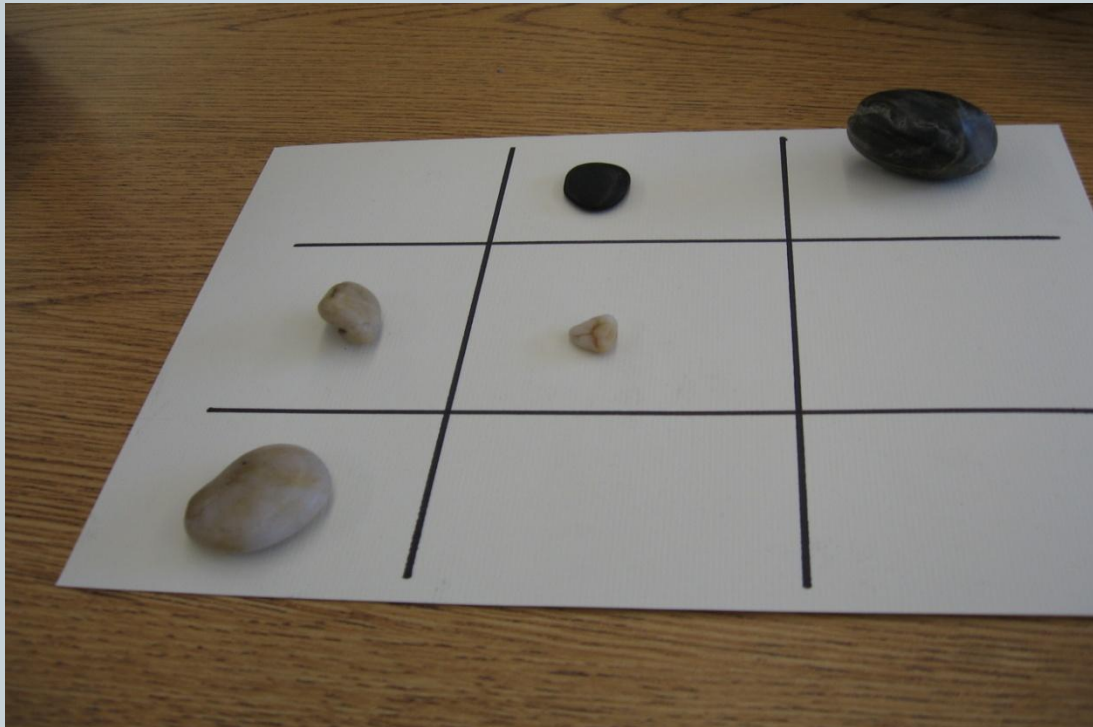


- Flip camera – group work recorded, played back without sound
- Interactive discussions – reflection leading to critical thinking

Explaining Ramps



Bringing Their Words Back to Them



Mrs. Ripstein:
“So Ben you
said you tricked
Harper a
couple of times,
what does that
mean?”

Photographs to Encourage Critical Thinking



“I made an electricity building. The electricity comes up here and goes out the tubes through invisible lines to the houses.”

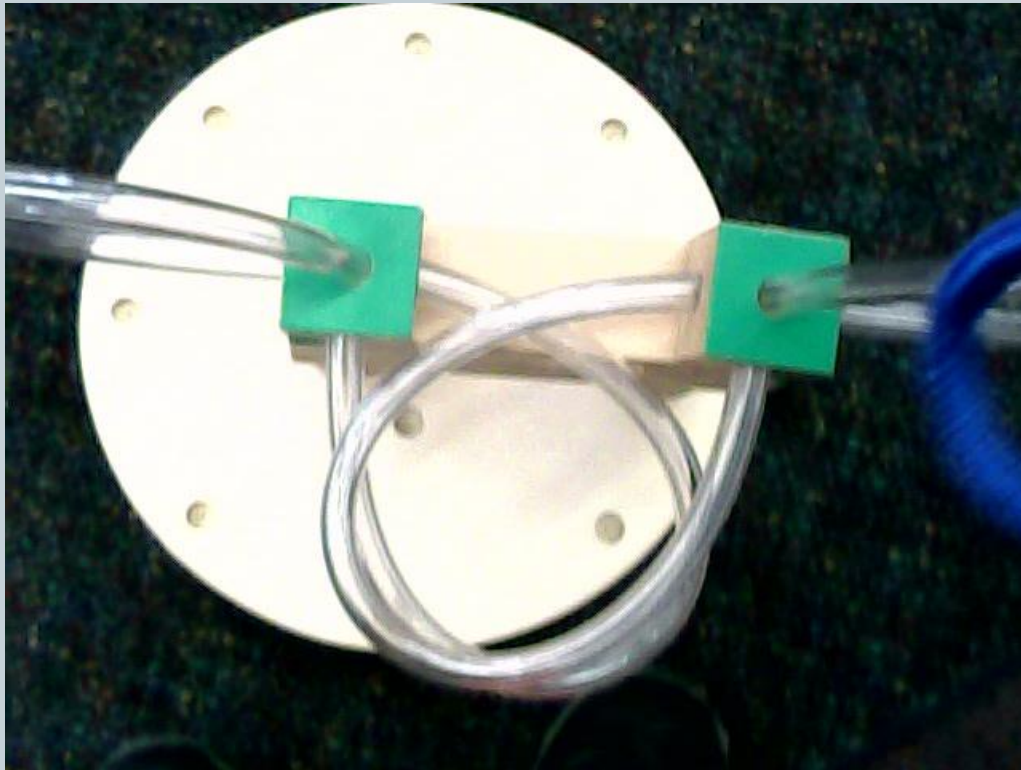
Photographs to Encourage Critical Thinking



“I made things sticking out that make a force field so that it will be safer. It stops people from coming in. I changed the sticks to support the building. I made bigger spaces; those are all the offices I added.”



Photographs to Encourage Critical Thinking



Ella – “I was thinking about the squares and how many there were.”

Using a Document Camera



Using a Document Camera



- Carolyn - (Lots of excitement by the children - ooh that's really bright) well this is a big red circle and the little lines I sort of wanted it to look like the sun
- L - I see lots of little shapes inside the big red circle tell me about those
- C - I just wanted to put little circle inside it so it would look cool
- L - how about what you put on the outside of the circle
- C - I sort of put a square and then a line around it
- L - tell me about that
- C - it looks green because I used a little green
- Owen - why did you put squares ...
- C - because I thought it would look cool and I didn't really know what I was going to do that was the first thing

Changes in Pedagogy



“The biggest change has been that I bring things back to the children on a daily basis; using their thoughts, journals, completed work, photographs or videos. It depends on what I have available.”

Awareness by the Children



“If I want to build this again, can I take a picture?”

Next Steps



**Continue to “Mess About”
with documentation.**

Reassigned Time Summary – Fall 2010, 2 credits/Spring 2011, 2 credits.

Leslie Sevey

Title of Project: Using Pedagogical Documentation to Support Young Children's Thinking Processes (Messing About With Documentation).

This reassigned time project entailed spending 2 hours each Tuesday and Thursday afternoon during the fall 2010 and spring 2011 semesters in Bonnie Ripstein's kindergarten classroom at HBS. During this time the classroom teacher, Bonnie, and I explored the possibilities of using pedagogical documentation with the children to support their thinking processes. In essence we spent time 'messing about' with documentation to find effective ways to utilize it to support the children's memory in order to facilitate reflection and critical thinking.

My time was spent in the classroom directly documenting the teaching and learning through audio and video-taping the students, observing the students and teacher and recording their discussions through note-taking, and taking photographs of the students and teacher at work. This documentation was then used the teacher and I to reflect on the teaching and learning that was taking place in the classroom in order for Bonnie to make teaching decisions about appropriate next steps and assess the students' progress. We also used the documentation to bring it back to the children in several formats including using the document camera, photographs, transcriptions of the student's discussions and experiences, as well as videos in order to encourage the children to reflect and think critically.

As a result of this experience Bonnie saw the children become better at reflecting, paying attention to detail, which supported their critical thinking. In addition, Bonnie noticed a big change in her own pedagogy. When asked about the impact of this work on her thinking, she reflected that "She saw this work as having an underlying theme about how to develop critical thinking skills in the children". She also commented that she sees the addition of the children's digital cameras as a way for the students to document their own work. In addition, a shift in her pedagogy includes changing her format to include a discussion with the students after their 'job' time to share their work with them and their classmates in order to reflect on the work that was completed. She noted, "The biggest change has been that I bring things back to the children on a daily basis; using their thoughts, journals, completed work, photographs or videos. It depends on what I have available." Bonnie has seen an increase and improvement in the student's ability to reflect and think critically. Bonnie shared an AHA moment she experienced. "Last week made a difference for me. One of the things I noticed, for examples was the game (tic tac toe). Each day when we reflected, the next group benefitted from the other children's thoughts and reflections, especially with the photographs and perspective for the inventions. The last group really benefitted. It helped not only the group on that day, but the whole group. Their knowledge seemed to progress and the reflections supported the critical thinking".

We created a set of panels depicting one project completed with the students, which will be on display at HBS. We plan on continuing to "mess about" with the documentation and explore other ways to document the children's experiences and support their learning by using bits and pieces along the way. Our goal is to develop this project into an article for publication.