CHAPTER 5

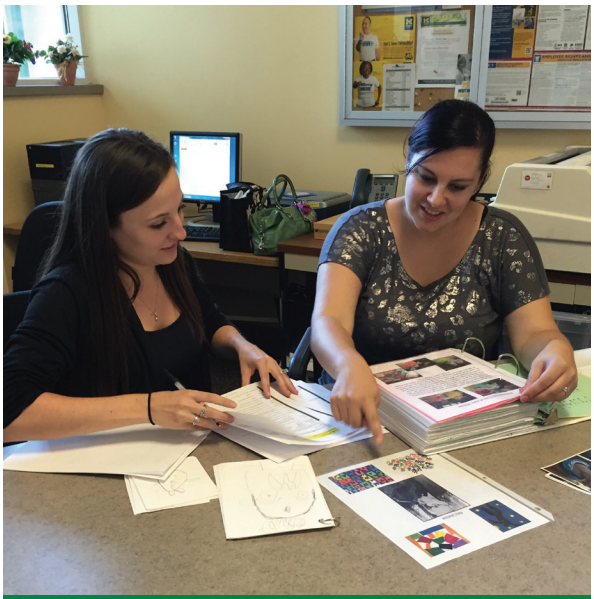
Interpreting Children's Thinking

Every aspect of the COI system involves your thoughts on how children's thinking is guiding the curriculum. Your interpretations connect your description of children's play to your ideas of what children have in mind. Through these descriptions you create theories about what the children are thinking (Carter 2018; Wien & Halls 2018). These descriptions generally surface in casual conversations among teachers following their observations, when they excitedly share what they noticed. This chapter introduces the COI Interpreting Thinking form, which asks you to acknowledge the significance of this reflective thinking and these shared conversations by documenting them in the form of a descriptive narrative focusing on what you see as significant in your observation records. Writing a narrative helps you to reflect on and better understand children's thinking and to plan based on children's perspectives (Carter 2018; Curtis 2017). As you practice this writing process, you will likely generate more ideas about observation data than you would through undocumented conversation.

Teacher Interpretation

Teacher Thinking About Children's Thinking

The most fruitful behaviors to identify in your observation records for extending children's thinking are those that suggest some strategy the child is using to achieve a goal based on her existing knowledge. These strategies give meaning to the child's actions. For example, Lizzy is drawing a shadow in what she describes as her tummy. As she draws, she tells her teacher and her friends, who are also drawing, that the lights have been turned off and the shadow went inside her. Her goal is to think about why she doesn't see shadows when the room is very, very dark. She bases her drawing on her knowledge of two things: that in the very dark room she could not see her shadow and that her shadow is attached to her when the light is on. The things children do suggest that they believe the world acts in a particular way—which it might in some circumstances but not in others. If you interpret children's actions as strategies, you can use them as indications of what children may be thinking. Although you are speculating, if you stay open minded you can form a number of theories and questions about the children's thinking that you can explore with them (Forman & Hall 2005; Silveira & Curtis 2018). Your interpretations of the many details within children's thinking is a bit like brainstorming, which is a divergent thinking process. These ideas can guide you to intervene to challenge children's theories.



Teachers collaborate to revisit and interpret the observation data in their COI Observation Record forms.

A planning goal is to design ways you can intervene with materials, statements, or questions so that children may act in ways that challenge their own thinking. This self-challenging process is at the heart of constructive play (DeVries et al. 2002; Duckworth 2006; Fosnot 2005; Jones 2012). The goal is for materials, statements, or questions to be subtle enough that children feel as if they are the authority, challenging themselves as they explore and engage in peer conversations. When you focus on children's developing theories, consider what you might do to give them opportunities to test or extend their thinking (Wien & Halls 2018). Through experimentation children gain new knowledge. For example, as a first-step provocation to extend Lizzy's thinking about shadows, her teachers set up a center with a stationary light that is safe for children to turn off and on, a large box prepared with a window cut out, and three pieces of materials of different thickness to cover the window. Children could manipulate light inside and outside the box to explore the position of shadows.

Interpreting Children's Goals and Related Strategies

Children's actions and words mean something to you because they give you information about children's development, personalities, emotional needs, interests, and knowledge and theories of the world. To develop emergent inquiry curriculum, you will focus on ways to better understand and extend children's developing knowledge and theories of the world. Develop the habit of speculating on the ways children are *thinking*: "the children are acting this way because they have a goal or a strategy for achieving that goal" (Carter 2018; Forman & Hall 2005; Wien & Halls 2018).

A Focus on Thinking Leads to Conceptual Versus Thematic Curricular Design

To understand the difference between planning conceptually and planning thematically, consider a classroom in which several children are actively playing with dinosaur characters they find in the block area. A teacher who is not paying close attention to the thinking behind the children's use of the dinosaurs might immediately think about dinosaurs as the "what" of the behavior. Seeing this as an interest, she introduces activities for building a dinosaur habitat. In contrast, a teacher who tries to understand the children's behavior takes note of the details, like the ways the children are using words, growls, and actions to possibly represent the "bigness" of dinosaurs. She hypothesizes that bigness is an idea the children have in mind. Unsure, she invites the children to look through several historical and informational books about dinosaurs, including encyclopedias.

The children's dialogue and actions again seem to reveal that they are more than likely intrigued by the bigness of these creatures. They use blocks to construct what they speak of as tall and strong dinosaurs. They pause on a picture of a dinosaur claw that leads them into a rich discussion about size, wondering how big the dinosaur's claw would be in comparison to their fingernails. Thus, bigness and scale become the focus of this teacher's plans to help the children extend and investigate their thinking and theories about these concepts. The difference between the two teachers is a themed focus versus a conceptual focus that follows and builds on the children's theories.

Power might also be of interest with these large creatures, as it might be when children pretend to be superheroes. In these situations, teachers can guide children to think about their ideas about power and authority, their role in the world in relation to powerful adults and such, rather than create blanket rules to ban superhero or power play. For example, a preschool teacher and director who investigated "bad guys" with 4-year-old children found that the rich conversations in their long-term process of exploring ideas about bad guys and good guys helped

children to express feelings that surfaced at night and just before sleep. This reduced the representation of bad-guy play in the classroom.

Following her first experiences with the COI Interpreting Thinking form, Christine, a director in a Reggio-inspired preschool in Virginia, reflected on the need to interpret closely in order to avoid a themed curriculum and to design plans that truly align with the children's purposes:

> *Interpreting thinking* is the part in the cycle that I think most teachers miss. What is behind the child's actions? What are they thinking? What are they questioning or trying to figure out? This is really the key pivot in the cycle and critical to development of curriculum. It's probably the most important form to take the time and reflect on. Although time consuming, this part of the process in the development of curriculum is really the whole point, the crux of the matter. . . . I believe many teachers might capture the essence of children's exploration and derive a "themed" curriculum without truly reflecting on interpreting thinking.

Writing about what they think the children are thinking in a narrative description is a very new experience for many teachers. It is a stretch to look at documentation of the children's actions and circumstances and determine what the children's thought processes may be. As noted previously, teachers have been trained to be objective, having been told that the subjective nature of interpretation is taboo. Tina, a graduate student studying early childhood, expressed the way she feels challenged when asked to interpret children's thinking:

> Teachers have been trained to take notes without thinking. We are told to write what we see, be objective, don't write what we think. We are, in a sense, being trained to *not* think about why. I think it is going to really take some time to retrain teachers to think about what they are writing and get them to try to figure out about children's thinking. Teachers need to think of the "why" more than "what". . . . Think about children's work in terms of "why they are doing what they are doing" as opposed to "what are they doing." I think this is the biggest challenge in regard to observation and documentation.

Janet, a teacher, also noted the importance of focusing on the why of a child's behavior:

> I observed a boy who built a structure out of bricks and rolled a marble down the ramp and his structure did not fall. I noticed that he continued to build on the structure and he still got the same results. Then I realized that his purpose was not to knock down the structure but to make a structure that would not fall when he rolled the marble. I would have not thought of that if I hadn't observed and reflected on his thinking.

The COI Interpreting Thinking Form

What to Document

When you have the impulse to share your thoughts about the play you've just observed and documented, or when you have the opportunity to review your observation records, you will want to capture your thinking in the COI Interpreting Thinking form (see Appendix 2). The meaningful events of the play will come to mind in the act of describing a play episode as a narrative. Write quickly, organizing the narrative to read like a good story that (1) has a point, (2) gives brief background description, and (3) focuses on events that move the story along. To ensure that your descriptions are useful for planning a curriculum, base them on observation details that suggest children are using specific strategies. You cannot always tell what the strategies are, but you can form good guesses or imagine provocations that will help you to further explore the children's thinking beyond the what to the why. Use lots of descriptive language so you can identify actions that seem significant,

but also capture your speculations about children's thinking in your narration to get to the heart of children's theories:

- I think they did this because of that.
- Are they thinking this or that when they do this or that?
- Why do they think their actions are reasonable?
- What do I think are their goals?
- What do I think they want to see happen?

Interpret a child's actions as strategies when you think he is using some knowledge or theory to achieve a goal (Forman & Hall 2005). If you interpret actions as indications of a child's interests only, these may suggest where the child is developmentally, or a particular interest, an emotional or social need, or a personality trait. It is fine to note these, but these interest indicators typically guide thinking toward themed curriculum around a topic. Topics may hold children's interest for a while but may only accidently challenge children's theories and knowledge about the world (or themselves) and are not likely to probe and extend their thinking.

Strategies for Writing the Narrative

Teachers can capture interpretive thoughts during observations, jotting these down in the memos section of the COI Observation Record form, but understanding the significance of these events usually requires a conversation. These are joyful conversations where teachers learn so much about children's cleverness and wit as well as about their own teaching practices, which energizes them. These collaborative conversations typically take place in the form of teacher meetings, where coteachers or teams of teachers rehash the experiences documented in their observation records.

A recommendation to save time during these conversations is to have one teacher write as another talks about his interpretations. When the writer begins to talk, pass the pencil to another teacher. Capturing the conversation in writing as it progresses means that you won't need to backtrack to record these thoughts and saves precious planning time.

Getting to Know the COI Interpreting Thinking Form

Use the COI Interpreting Thinking form to record the conversations with your coteachers about what you observed and your hypotheses about the children's goals, strategies, and theories. This form has the same identifier information as the COI Observation Record form: a tag for noting the Big Idea or inquiry thread and the observation date. This form asks only for the interpreter's names. There is a top section of a table and a bottom section of a table.

Top Section: Speculate on What the Children Are Doing and Thinking

The top section of the COI Interpreting Thinking form is where you write your narrative, recording your thoughts about what you observed and describing the sequence of events with a story line. You may find that you begin by describing what happened without pausing to think about the reasoning behind children's actions and words. You will want to slow down as you recall the events to tell your story with as much detail as possible, because each bit of detail can represent different strategies or possibilities for extended learning opportunities. To record your thinking about the why and how of the specifics in the children's play, insert language like "I think they did x because they were thinking y" or "action x seems to represent the child's idea y."

The purpose of this form is to begin to think divergently by interpreting the observed play of children from as many perspectives as possible to try to determine what the children might be thinking and what they know. Write your narrative as a series of interpretations. Review the descriptive narrative in Figure 5.1, which represents the many interpretations within an observation of 3- to 5-year-old children exploring worms.

Several Big Ideas for planning next steps that might surface from these interpretations are the ways different animals move, the functions of the body parts of particular animals or humans, and the adaptation of an animal to the environment.

A couple of ideas that emerged in these teachers' particular explorations were the children's thoughts on the relationship of movement to life and lack of movement to death, and the idea of the environment, such as the earth, as a protector from the sun and rain—much in the way that houses serve the same role for the children and their families.

Children exploring a worm with their teacher

Cycle of Inquiry
Interpreting Thinking

IT

Tag:
Interpreters:

Date:

Speculate on what the children are doing and thinking.

In the next two boxes, keep in mind that you're looking for emerging threads of play that have the most potential for advancing play toward children's inquiry. ***You are forming a context for interpreting what you saw***.

Write a narrative using as much ***descriptive language*** as possible to tell the reader what you think this play was about. Write freely. Within your description, ***speculate with statements*** like "I think they are doing *X* because of *Y*."

The children started play by touching the worms and placing them on the plex-glass table. This was done possibly to gain control of the worm's movements. The children understand that if they change where the worm is then it may affect the movement of their bodies. I think the child understand that since worms do not make noises that they use their bodies to show how they feel. The children have also begun to make hypotheses about the movement of worms because they are able to describe how and why the worms move in different places. The children also are creating cause and effect methods to help back up their hypothesis either stated out loud to a teacher or mentally thought about during engaged manipulation of the worm. Furthermore, the children are beginning to mimic their bodies in comparison to the worm's bodies because they are curious on what it is like to be a worm. Pretend play about being a worm has been evident.

Figure 5.1. Narrative on a COI Interpreting Thinking form representing young children's exploration of worms.