

## Case Analysis Protocol

*The protocol and cases were written collaboratively by members of the Science 20/20 team.*

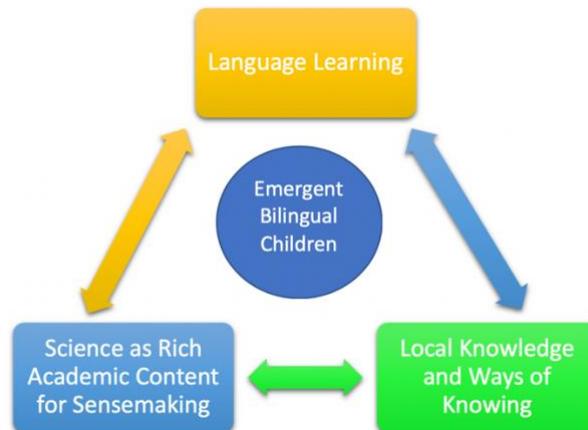
**Description:** Each case represents the lived experiences of those connected to the project as researchers, teachers, students, and student teachers. They are real, but names and minor details have been changed so as not to completely identify those involved. We do not intend for these cases to be black and white, right or wrong. Instead, each case illuminates areas of strength and potential and allow for self-reflection. They may ask us to articulate and question our own biases, assumptions, and taken-for-granted practices. Cases such as these are intended to surface tensions. Having group norms and protocols in place before engaging in case analysis is important for the success of the protocol. In discussing the case, we encourage you to think through the complexity of each case, seek to understand, imagine what else might be true, and exercise asset orientations.

**Protocol: Part 1.** Familiarize yourself with the Science 20/20 Framework before reading the case.

### Science 20/20 Framework

#### Guiding Principles

1. View **students as capable partners** in knowledge building.
2. Invite **productive participation** in science practices and sensemaking.
3. Utilize caring **formative assessment** and seek to understand what students know.



**Part 2.** Read the case thoroughly. Once everyone has had enough time to read the case thoroughly, summarize the main events in the case and identify the problem(s) posed by the case.

**Part 3.** Use the Science 20/20 Framework and Guiding Principles to facilitate an open discussion related to the case. Same questions and prompts might include:

1. *What scientific practices and literacy practices are present in the case?*
2. *How has the teacher(s) and how might the teacher(s) invite students to draw on their funds of knowledge and local knowledge?*
3. *Where do you see evidence of students positioned as knowers, productive participation, and/or formative assessment?*
  1. *What are the opportunities to position students as knowers, invite productive participation, and incorporate formative assessment?*
4. *What else might be true?*

**Part 4.** Connect back to your context. Reflect. How might this case and the discussion of the case inform your work?

## The Case of Erasing a Student's Writing

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The students just finish their five-minute drawing of what they noticed and wondered about their investigations with worms. Kindergarten student teacher Miss Owens and her mentor teacher Ms. Wilson walk around the room to help students with their kid writing on worms. Students are asked to write one 'noticing' and one 'wondering' that they have about the worms in the classroom. Miss Owens notices that Emma, an emergent bilingual who receives daily pull-out ESL instruction, is looking at the student's paper next to her and starting to write, *I s*, the same beginning as the student next to her. Miss Owens hadn't seen Emma write on her own before. Usually she needs a printed writing support or teacher to help her think of the sounds and sight words. Miss Owens squats down next to her and has the following conversation:

Miss Owens: "¿Qué viste o aprendiste de los gusanos?" (What did you see or learn about the worms?)

Emma: "Son grandes."

Miss Owens: "Great! In English, that means worms are big. (She gestured "big" by stretching out her arms/hands wide.) What sound do you hear in worms?"

Miss Owens asks Emma to get a writing pal that includes the alphabet with pictures on one side and sight words for the whole year, organized by first letter, on the other side. In the past, the writing pal has helped Emma identify the beginning and ending sounds of a word. Miss Owens emphasizes the sounds as she says them and gives Emma three letter options with their corresponding picture to match with the sound: "Does w-worm sound like *u*, *u*-umbrella, *v*, *v*-violin, or *w*, *w*-water?" Emma picks one and writes down the corresponding letter. She did this for the letter sounds *w* and *m* to make the word, *worm*.

Miss Owens then asks Emma to find the sight word "are" on the sight word chart in the writing pal, which she did. Emma completes the sentence by writing down the sounds she heard for the word, *big*, which was the sound/letter *b*. Emma finds the letters/sounds and sight word on her own to make the sentence, **wm are b**. (Worms are big.) Every time she wrote a word, she asked if she needed a finger space after letters, demonstrating she understood words are separated by spaces. Emma finishes writing and Miss Owens asks her to add to the drawing she started before writing with Miss Owens.

Miss Owens walks around the classroom again to help students with their hands raised. As she passes Emma's table, Ms. Wilson stops her and says, "She can't use that!" (i.e. submit as her work). "Emma can't read back what she wrote. It has no meaning for her."

Miss Owens is shocked by the statement. She thinks to herself, *how is she supposed to read it back if she couldn't tell me it in English? It's still her thoughts.*

She did not know what to do, so she asks Emma if she could see the paper and then erases the writing out of frustration. She tells Emma that she wants her to keep drawing as much detail as she can for the worms. Emma stares at Miss Owens, a little confused as to why her writing was being erased, but not seeming too concerned, especially since she was encouraged to keep drawing, something she enjoyed doing. Miss Owens walks away to help other students and returns to Emma a few minutes later to see what she drew.

Miss Owens questions Emma, “What did you draw? ¿Qué dibujaste?” Emma responds, in Spanish, “a mom and babies.” Using the writing pal, she identifies the first sound in *mom* and *babies* and writes the letter next to the corresponding worms. Miss Owens turns to Ms. Wilson, “She said that she drew a mom and babies and was able to write the first letter for both words. She could tell me what she wrote too.” (Though Miss Owens thought she could read it back because it was right next to the picture). Ms. Wilson replies, “That’s fine. She just needs to be able to read it back to you.”

**What happened next.** When the planning period happened, she went into a separate room with one of her supervisors and her student teaching colleague to reflect on the lessons they both did that day. She explained what happened with Emma’s writing. She regretted erasing the work because it was Emma’s thinking, but her frustration got the best of her. At the end of the session, Miss Owens and the others concluded that she should talk to Ms. Wilson to understand her expectations for Emma’s kid writing, which she did later that day.

Ms. Wilson explained to Miss Owens that she was more concerned with Emma listening to and writing more sounds in one word than writing a whole sentence. In other words, she would have preferred to see Emma write “**worms**” rather than “**wms are b.**” She told Miss Owens that it is not true writing nor considered true thoughts if the student cannot read back what they wrote. Because Emma was just starting to write and still needed a lot of support, she wanted to start with one word and then expand into a sentence as she progressed. Miss Owens did not understand this intention due to previous writing Emma had done, including with Ms. Wilson, but respected what Ms. Wilson said and tried to encourage Emma to write more sounds in one word rather than a whole sentence in future work.

