

Case Analysis Protocol

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

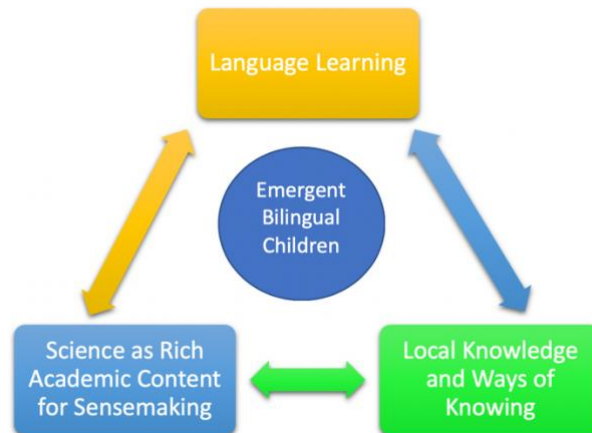
Description: Each case represents the lived experiences of those connected to the project as researchers, teachers, students, and student teachers. They are real, but names and minor details have been changed so as not to completely identify those involved. We do not intend for these cases to be black 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?

A Case of Setting Science Talk Norms

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First grade student teacher Mr. Harris sits with her student teaching colleague, Mr. Brady, and supervisor, Ms. Fern, during their student teaching seminar to talk about any updates in the classrooms and upcoming assignments. Mr. Harris brings up the topic of Spanish use in the classroom.

“Something that I am struggling with is how to include Spanish (the first language of the majority of her students) in the classroom while also building on students’ English skills. I know that it is beneficial to use the first language in the classroom because it can help students metalinguistically compare their first language and English, as well as understand the content, but it is hard when they are assessed in English. I also feel like my students are hesitant to use Spanish during academic discussions in the classroom. Does anyone have advice on what I could do?”

The three teachers sit for a second to think about what Mr. Harris said. Ms. Fern suggests, *“Why don’t you try to set speaking Spanish as an expectation or norm for science talks? It is important to set the expectations anyway so students know what they should be doing while they are discussing their science learning, so adding this at the end might give more students the confidence to use Spanish to make sense of what they’re learning.”*

Mr. Harris thinks about this and says, *“I really like that idea. So for my science talk norms/expectations, I would say, ‘Make sure we are listening to the person that is talking, not talking while other people are talking, respectfully disagree and agree with others, and use whichever language--Spanish, English, or another--that you prefer to discuss your thinking.’ Does that sound good?”*

Mr. Brady agrees, *“I think that sounds great.”* Mr. Harris thinks aloud, *“If I am encouraging the students to use Spanish in their discussions, I have to make sure I am doing that too. If they don’t see the teacher doing it, it is hard to make it a norm in the classroom. Maybe me using Spanish during these discussions will further push them to do the same. I need to be more conscious of that.”*

Ms. Fern adds, *“It would also probably be a good idea to write down what they say in the language they speak in. For example, if you are recording students’ noticings and wonderings on a notice/wonder chart and a student says a noticing in Spanish, writing it in Spanish would further encourage the use of Spanish and help them see how oral language can be transferred to print.”*

Mr. Brady challenges Mr. Harris, *“I completely agree with you, but think about if you were a monolingual English teacher who didn’t know Spanish, or a teacher of students who spoke various first languages, would you still do this?”*

Mr. Harris replies, *“Because I am bilingual in Spanish and English, I think it is important for me to use the asset of Spanish to help my students value their bilingual asset and deepen their linguistic and academic knowledge. I do see what you are saying though. If I was a monolingual teacher or had languages I didn’t know present in the classroom, I may not be able to speak fluently in the first language of my students, but I could try to learn a few words or let my students speak their first language anyway even if I don’t know what they’re saying. A lot of times students can bounce ideas off of each other if they speak the same language. I would still do my best to implement first language instruction by learning from my students and being okay with not always understanding what they say, which I know may not always be the easiest thing to do.”*

Note: We also find that many of our cases are complementary to and can be analyzed with the protocol and Equity Literacy Framework in Gorski and Pothini’s text *Case Studies on Diversity and Social Justice Education* (2nd Ed., 2018). [<http://www.edchange.org/cases/Case-Analysis-Model.pdf>]