Summary

Tinkering dispositions can be built in multiple kinds of settings, however, educators and students need to be able to have fluid activities where multiple ways of knowing can inform each other. Gutierrez et al. reframe how teachers can engage kids talk and welcome diverse activities and linguistic practices to deepen learning and broaden participation. This article explores how teachers allow students to offer local knowledge, reorganize activities, and make meaning that can connect to the official curriculum in unexpected ways.

Research Design

Gutierrez et al. conducted a long-term ethnographic study of a combined second and third grade classroom at a school located in a largely Latino, working-class neighborhood in a West Coast city. The authors investigated how thoughtful facilitation in a dual emersion classroom could shift students’ engagement with learning over time. The focal teacher, Ms. Rivera, had been teaching for two years and was fully bi-literate in Spanish and English. She described her teaching practice as based on an underlying idea that learning is social and part of her goal was to “give voice to the children” and “break the power structures of society, not to reproduce them”.

Findings

The classroom was designed as a community of learners where the teacher continually drew on children’s expertise and experience, as she also apprenticed them into language and learning practices.

WHY IT MATTERS TO YOU

This research acknowledges and builds on the idea that in a community of learners both adults and children can bring ideas and resources from their everyday lives to the classroom and informal learning spaces in order to create a richer learning environment for the whole class. Facilitators can

• Build flexible learning plans and listen for sense-making in student conversations and to incorporate these understandings in classroom science inquiry.
• Assume that children will draw on their own ideas and experiences to make sense of new content and will ask questions based on their own understandings as they extend what they know.
• Create linguistically- and artifact-rich learning environments where a diversity of linguistic resources and practices can work together to help students and teachers build complexity and create a culture of collaboration.
Researchers found that this facilitation allowed children to productively reorganize classroom activities. For example, Ms. Rivera utilized children's talk in informal spaces in the classroom to revise the curriculum into a much richer and meaningful science unit on human reproduction. In her practice of listening deeply to children, she heard student's call a child a "homo". She addressed this conflict and asked the students if they wanted to learn about human reproductive system. They agreed and Ms. Rivera created a unit on human reproduction. This is important because Ms. Rivera positioned her students as thinking partners whose interests were an asset to improving the learning environment.

The authors also found that engaging children’s seemingly unrelated comments opened up opportunities for students to incorporate local knowledge into the classroom curriculum. For example, when a student asked the teacher during a whole class discussion “¿Qué es esperma?” {{What is sperm?}}, there was student chatter and another student, Jorge, answered, “Es como un tadpole.” {{It’s like a tadpole}}. Then Jorge made swimming tadpole motions with his hands. The teacher understood Jorge's comment and gesture as demonstration of his understanding and took up his idea as a contribution and wrote it on the board with the other student-generated questions. At the same time, she both valued and clarified his contribution and said, with a playful smile on her face, “Jorge parece como renacuajos, pero no son renacuajos.” {{They look like tadpoles, but they are not tadpoles.}} In this case, the student talk in the back of the classroom deepened the conversation and also provided Ms. Rivera opportunity to continually nuance students' understanding of concept of sperm.

Finally, the authors found that taking seriously students’ unofficial talk and ideas often promoted deeper understanding of big ideas and concepts important to them, as well as for deeper science learning. For example, in response to a student-generated question about how many babies women could have, children began sharing their own accounts about how many children their grandmothers had had. In another instance, a student connected his uncle’s nickname for him, Boney, as he touched his own spine as part of an activity to understand the developing body.

**Theoretical Basis**

The authors use the term Third Space to describe classroom spaces where the official and unofficial curricula come together to create a multidimensional, multi-voiced classroom. There are official spaces in classrooms where students are focused on the activity sanctioned by a teacher. There are unofficial spaces where children create their own activities. And there are hybrid spaces in between these two extremes where teachers and students make connections drawing on a diversity of resources available in the learning environment. In this more productive, hybrid space researchers focus on meaning-making and learning that require both children's everyday knowledge and language practices. Specifically hybridity included their home language and school-based content to create rich opportunities for children to drawn on words, ideas, stories, hunches, and experiences from other contexts in order to make new meaning.