

Shari Ellis: During science conversations, what do children learn about language use other than just vocabulary? Dr. Patton Tabors: Well, let's think a little bit about what the children do in terms of language development. What's the process they're going through? First, children listen to language. That's their starting point. And then eventually they begin to learn to use language themselves.

Adults are very critical, and crucial in this situation. What adults do, and what's so -- why conversations in science are a wonderful context for this, is that they ask some questions. They spend some time describing. They are able to summarize what the children have learned. And by using their language in those ways, they're showing the children, they're modeling for the children what kinds of questions children want to ask themselves...

...so that if the children are investigating on their own, they've got a little tape recorder in their head that's going, "Let's see, what does this do? Oh, if I do that, how does that work?" And they're asking themselves these questions. "Why is this happening?" And they've learned how to do that because the adults have modeled those questions for them in the course of having that conversation.

So, two wonderful things are happening. First, the conversations are helping the children learn concepts, build understanding, gaining knowledge about how the world works. But at the same time, they're building information about how language use operates, as well.

So children are learning how to make explanations about what they're seeing, to make arguments about how do you know that that's happening? These kinds of use of language we consider higher level conversational use of language or a language development, and the research does show that this kind of language use leads to excellent literacy acquisition later on. Shari: What about vocabulary and science?

Dr. Tabors: I think probably one of the questions people want to know is, "Should I be using all those big words with little kids? Isn't that too much for them? Isn't that something that they really can't -- can't take on?" And again, I think we need to think about how it is that children learn language and learn vocabulary words. Well, the way they do that is that they hear these words in a context that's exciting and interesting and meaningful to them...

...so that if it's a word that is being used in that situation, it's being used intentionally by the teacher to demonstrate or describe or to show or to tell the children what's happening, then that's a word that the children will want to use themselves later on. So I don't think any words should be off-limits. I think any time that a science conversation is started, the words should flow that describe everything that's going on.

Shari: There are some words that describe or define science practice skills, like predict, hypothesize, chart maybe. Can you give an example of how a teacher should best introduce a word like predict?

Dr. Tabors: I think we undersell how well children gather the meanings of words from the context they're being used in. I think there are certainly times when it makes sense to define a word for -- for children. If you have an object that's right in front of the child that you want to talk about, go ahead and, you know, give the vocabulary item that matches the object that -- that you're holding so that there's a quick one-to-one correlation.

But for things like process words, like predict and explore and experiment, I think children get a better understanding of those words by hearing them as the teacher is showing what they mean, not that she stops and says, "Now, by the way, here's what this word means," because children really don't need that explicit use of language.

They really just need to hear the words in the way that lets them pick up what the idea is, and they need to hear it more than once. They need to hear it over and over again, and, you know, if you're doing science investigation, if you're having science conversations, those are the words that -- that they're going to be hearing. And they'll begin to figure out very quickly what those words mean.

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