

## But Why? Children's Curiosity in the Classroom

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When my youngest son Sam was about three years old I took him to the Central Park Zoo in NYC. We wandered into the Tropical Exhibit, where the air was dripping with humidity, there were lush plants and exotic birds, and behind a glass wall, all kinds of interesting creatures. Children all around us were craning their necks, staring in wonder at the moss, opening their mouths at the sound of the birds, and watching the reptiles behind the glass. But my son, who had spent his whole life outside investigating the woods, handling wild animals and learning about plants was slightly less awed by most of the flora and fauna. However, there was one thing that caught his eye: two huge, moss covered tortoises lumbering slowly amongst fern and woods. He watched with total absorption as one of the tortoises slowly moved towards the back of the other tortoise, lifted himself up on top and with a rocking motion began to moan a most distinctive moan. My son contemplated this for a while and then turned to me and said with interest and pleasure, "I know what they're doing Mom! They're fucking! Is that what they're doing? Are they fucking?"

Already familiar with the other zoo attractions, reptilian sex was a novelty, and therefore the very thing he wanted to know more about.

All children begin life with an avid need to know. The day is filled with novelty and that novelty is what triggers the need to know. But with development young children's omnivorous and voracious appetite for information narrows down. More of the world becomes familiar. Less of the everyday world contains surprise. As children acquire routines to guide them through daily life and provide them with all kinds of knowledge,

their curiosity becomes more narrowly focused on the particular events, objects and topics that interest them. The deeper they go into these topics, the subtler the source of novelty. This explains why young children seem curious about everything, but older children and adults only about some things. It also helps explain why, as children get older, it becomes so important for them to have access to experiences and objects which elicit their particularly curiosity.

Meanwhile, by the time children are three they have acquired a remarkable tool for inquiry. They have learned to ask questions. Take the following example:

Child: Why the dog poops outside?

Mother: Because that's what animals do.

Child: Why don't we poop outside?

Mother: Because we're people.

Child: But you said people were animals.

Mother: Yeah, but people have houses.

Child: But this is Lucky's house too, right?

Mother: Yes, but even so, Lucky's a dog.

Child: But they don't like to poop in a toilet?

Mother: I don't know. Lucky's never tried it.

Child: But he might like it, right?

Not only does this exchange show how tenacious children are at satisfying their curiosity and how skilled they are at using questions, it shows something else, equally vital- they want to know what, where, who and when. But most importantly, they want to know why. As far as we know, humans are the only species that seek explanations, and children as young as three use this hunger for explanation to understand not only the world of things but also the complex world of people and concepts.

Take the following, for example:

C : What's this?

M: Spinach. Which is kind of like lettuce that you cook.

C: Why sometimes you call it lettuce and then spinach?

M: That's all the same. It's green like lettuce, but you cook it.

C: How did you know when it's lettuce or spinach? Sometimes you like to cook it and sometimes you don't?

Nearly all three year olds ask many questions, and most of the time they do so to find out about how the world works. In one study children asked, on average, 27 questions per hour. And yet by the time those same children got to school, they asked only 2 or 3 questions per hour. While there are a few perfectly reasonable explanations for this (teachers have less time to answer such questions, and are less intimate with each child

than a parent might be) it is also true that questions have never been put at the center of the school day. But they should be.

Curiosity is, without a doubt, the fuel that drives learning. Study after study has shown that when children want to know something, they learn it faster, more deeply and more lastingly. Moreover, though question asking, tinkering, and other kinds of inquiry come naturally to the very young, there is a lot students can learn about inquiry in school: how to ask penetrating questions, how to find answers to complex questions, how to decide when their questions have been answered, and how to pursue a line of inquiry further.

What would it take to put curiosity at the center of the classroom? First and foremost, teachers would need to see it as a central goal of the educational process. They'd have to embrace the idea that though some children seem naturally more curious than others, all children can be encouraged to inquire further. They might begin by keeping a record of the questions children ask throughout the day, and if possible, the kinds of responses those questions elicit. Some research has suggested that when teachers becoming more attentive to children's questions, children become more curious and more skilled in their inquiry. Children need plenty of time, individually and in groups, to pursue their lines of inquiry. This includes having access to materials in which they are interested. As my son's story illustrates, different things spark curiosity in different people. Children should be given plenty of time, every day, for the kinds of informal and extended conversations (with other children and with grown ups) that promote question asking. Shifting the classroom to put inquiry at the core involves a little less emphasis on compliance, and a tolerance for uncertainty, not only amongst the children, but also for the teacher. However, there is no better way to foster perseverance than by giving children encouragement and support as they pursue the questions they really want to answer.

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There has been a tendency to think that such informal conversations and a focus on children's own interests are luxuries the most at-risk children cannot afford. And yet, it is exactly the children who might not have had rich or extended conversations at home, or opportunities to explore their interests, that most need the chance to ask questions, tinker, explore the environment. Curiosity is not a luxury. It's essential to any kind of lasting or meaningful acquisition of knowledge.