Research shows that the type of toys matters when it comes to how parents speak

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Research by Penn State Brandywine Associate Professor Jennifer Zosh looks at the impact of electronically "enhanced" toys on parent-child interactions. Credit: Penn State

As the traditional toys of the past are rapidly replaced by electronically "enhanced" toys, Penn State Brandywine Associate Professor of Human Development and Family Studies Jennifer Zosh is asking the question: "What impact do these toys actually have on the way we interact with kids today and the way they learn?"

Zosh, along with her colleagues, recently published a study in *Mind, Brain, and Education* that addressed this question. In the study, they looked at how parent-child interactions differed when playing with a traditional, non-electric shape sorter toy versus an electronically "enhanced" version of the toy, which had been turned into a bus with lights, sound effects and a voice.

Zosh said the researchers chose to use a shape sorter toy for the study because "our ability to think about spatial concepts is incredibly important. Research is beginning to suggest a link between how much children hear about spatial concepts and their spatial cognition, which is a building block for things like science, technology, engineering and math skills."

Half of the parent-child pairs that participated in the study played with the electronic shape sorter, while the other half played with the traditional, non-electric version. The researchers recorded the sessions between the parents and children, specifically looking at how much spatial language the children heard in both situations.

"We know that one of the biggest ways that you can support kids learning is to interact with them," said Zosh. "Parents are the most powerful tools a child has for learning. We wanted to know how the kinds of toys parents and children play with impact that interaction."

So, does playing with electronic toys stand in the way of high quality parent-child interactions?

Zosh said that parents in both scenarios talked at about the same rate per minute. However, "when we looked at how much kids heard about spatial concepts, children in the electronic condition heard substantially fewer words per minute. This effect held even when we added in the spatial words uttered by the toy itself." She added that parents who used the electronic toy with their child also talked more about the toy itself and less about shapes and spatial concepts.

Given the team's findings, Zosh isn't suggesting that parents should do away with all electronic toys. Instead, she says, opt for a mix of traditional and electronic toys and don't be distracted by the bells

and whistles.

"The take-home point is to think about how you are interacting with your children and not to let the toys do the talking," she said. "Talk about what it is you want your child to learn. And remember: parents have the ability to make play with anything meaningful, even cardboard boxes and plastic food storage containers."

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