

LEGO® Education Stories

Early Education Maker Spaces



In one area of Amanda and Miki's early education maker space, children are exploring colors, shapes and sizes. In another, a construction set of wooden blocks shows the children how to collaboratively build structures. In another, there is a calm reading space where objects that inspire wonder rest.

Amanda and Miki, part of the DevTech research group at Tufts University, research ways to create a maker space for young children. At the heart of their research is the idea of play. "One of the ways we've been looking at this space is the lens of play," says Miki. They look at how that allows learning, especially in early education, to flourish. **Their goal is to open a space that children can feel free to explore, experience and understand how to communicate, collaborate and invent with each other and the world around them.**

"A lot of what you think of as core curricular goals, we sort of structure the maker space around," says Amanda. Social and emotional development plays a big part in maker spaces. **Character building, collaboration and the element of play all form the pieces to an environment that provides a space for learning and invention.**

Miki and Amanda interviewed teachers to understand what they wanted out of a maker space. Much of what they uncovered was teachers "wanted the space to foster opportunities to work alone, to work in small groups and large groups, to collaborate in different ways, to view each other's ideas. As long as those elements are there that's a good start."

Making developmentally appropriate tools and space also played a big role in the maker space experience. When thinking about designing a maker space, Miki and Amanda compared young children to older children in how they interacted in a maker space for adults. They looked at the types of tools, the scale of each of the tools, and how to incorporate digital and physical materials.

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"There is a whole wealth of curricular directions you could go. When choosing the ideal tools – there are tools that allow you and your students to explore curricular areas and make connections between science, engineering, designing, human anatomy and plenty more," said Amanda.

Miki and Amanda's maker spaces bring in elements of both digital and physical creations – **a mix of materials that introduce arts and crafts, programming, coding, and science.** "The scissors and crayons for the 21st century – that is what we're after," said Miki.

When asked what the difference between their maker space and an early learning

classroom is, Miki responds, "Ideally there is no difference."

He continues, **"For children the best growth happens when they're free to explore the world around them.** The things that kids do for 45 minutes at a time in a maker space permeates into the rest of their life. I've seen that in all ages that I've worked with. It's not about what you can do in this room, but it changes the way you see the world."

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