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Gateway teacher goes to Harvard to learn how kids brains function

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Kaia Huseby is convinced students learn better when they know how they learn.

The new third-grade teacher at Gateway School in Santa Cruz has been showing her students the simple basics of what she learned in a Harvard University graduate program that studies how the brain learns and stores information.

The idea is that if children get a little insight into how the brain works, they will be all the more invested in the idea of filling their heads with a lot of good stuff. New material is more likely to be lost "if you're not emotionally engaged in learning," Huseby said.

The Vermont native and Bryn Mawr alumna, who taught in Mexico and Connecticut before coming to Santa Cruz this summer, entered the Harvard Graduate School of Education's Mind, Brain and Education Program because she wanted to know how students comprehend math.

She thought if she better understood how her students process new information, she could better "bridge the cognitive with the practical," as she said the Harvard program seeks to do.

The former textiles designer largely spares the students a complicated explanation about neurons and synapses, and opts instead for a white rope with knots. As she holds the rope up like a net, she explains how learning happens when the gaps in the net are filled through messages sent between the knots along the rope.

"They get it when they see the model," she said.

Huseby recently explained the Mind, Brain and Education Program concept to faculty colleagues. Head of School David Peerless said he supported Huseby incorporating details about brain functioning into the classroom because it fits with the 37-year-old independent school's mission to encourage students to be inquisitive "self-advocates."

"We want them engaged in their learning, not in pleasing the teacher," Peerless said. "Here they are learning for themselves."

Huseby said that when she began the Harvard program, "I thought of the brain more as an engine." She said she didn't realize that the brain actually changes as experiences,

information, images and emotions pass through it.

"Learning actually changes the structure of the brain," she said.

Huseby learned that there are three major functions of the brain important to learning: recognition, visual and emotional, the latter of which she said has not been as highly linked to learning capability as the others.

Although most brains look the same from the outside, they are shaped by cultural experiences, childhood growth and other emotional factors on the inside. With various levels of student capabilities, teaching children that brains process information in varied ways helps them "understand and respect individual differences in learning."

"Every brain is different," she said.

Lauren Tobin, whose 10-year-old son Jonah is a student in Huseby's classroom, said the teacher has taken what could have been a complicated notion and made it "very accessible" for the children.

"It's taught in a way they will remember it," Tobin said. "She has made it interesting and engaging for the kids."

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