Self-regulation game predicts kindergarten achievement

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Early childhood development researchers have discovered that a simple, five-minute self-regulation game not only can predict end-of-year achievement in math, literacy and vocabulary, but also was associated with the equivalent of several months of additional learning in kindergarten.

Claire Ponitz from the University of Virginia and Megan McClelland of Oregon State University assessed the effectiveness of a game called the Head-Toes-Knees-Shoulders (HTKS) task, which is a new version of the Head-to-Toes task developed by researchers at the University of Michigan. Both tasks have proved effective at predicting academic skills among preschool age children. Their results were published in the newest issue of the journal, *Developmental Psychology*.

The researchers assessed a group of 343 kindergarteners from Oregon and Michigan. Their self-regulation, or ability to control behavior, was measured with the Head-Toes-Knees-Shoulders task, a structured observation requiring children to perform the opposite of a response to four different oral commands. For example, children were instructed to touch their toes if told to touch their head, and vice versa.

They found that students who performed well on his behavior task in the fall achieved strong scores in reading, vocabulary and math in the spring, compared to students who had low performance on the task. In addition, the research showed that the children who performed well on the task scored 3.4 months ahead of peers who performed at average levels on mathematics learning.

"It's amazing that this game works as well as it does," McClelland said. "It is simple to administer, fun for the kids, and predicts children's academic achievement."

One area where the task did not make a difference

was assessing children's interpersonal skills. McClelland explained that the game is not "emotion-oriented," meaning it is not set up to trigger an emotional response. Instead, the Head-Toes-Knees-Shoulders task tests children on important classroom-related behavior such as listening, following directions and remembering instructions.

"We know this task predicts end-of-year achievement," she said. "Now we want to take the game to the next level."

McClelland is planning to do an extensive evaluation of the task for her next research project, testing the task with an even larger group of children. She also has a number of research projects under way with OSU graduate students, including one that uses a variety of fun games to improve a child's ability to regulate their behavior.

She said she has made a simple DVD that demonstrates the task, and in response has received requests from around the world from researchers who want to use the task with young children.

"The evidence strongly suggests that improving self-regulation is directly related to academic achievement and behavior," McClelland said. "If we can make a difference early in a child's life, they have that much more of a chance at success."

Source: Oregon State University (news : web)

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