

Why Are the Beads Red and White on a Rekenrek aka MathRack?

I present at conferences all over the country, work with teachers at their schools, attend webinars, take classes, and read a great deal of research on automaticity. Participants are always asking why are the beads of the rekenrek red and white? What is the research behind using those colors? One proud teacher announced 'We made our own rekenreks and used the school's colors!' Another Bear fan proclaimed her rekenreks were orange and blue! Or worse yet, one teacher let her kids select their favorite colors to make a rekenrek!!!!

STOP!!!! How do you have a math talk or explain one's thinking if everyone has different colors? While I am thrilled these teachers knew the importance of teaching with the rekenrek and spent their own money and time making them, they could have caused more harm than good. Let me explain.

Treffer, the creator of the rekenrek, selected the red and white beads for a reason, but there is no research explicitly about the effectiveness of his color choice. There is not specific research having a control group using the rekenrek structure with different colors to see if one was more effective than the others. If you were to explore brain research and the 'activity' of the brain with certain colors I am thinking you might witness some evidence of contrasting colors, how kids process, and how they can see the relationships 'easier' when the colors contrast. So, NO research on the colors red and white.

BUT this is why the beads should be red and white! According to Cathy Fosnot, who studied at the Feudenthal Institute, where Treffer did math research, believes the consistency of color is important to help children envision the MathRack as a tool. Using school colors etc should not be used because everything needs to be consistent and standardized. Red always comes first and white follows. This is NOT something to be creative about. If colors switch kid to kid, class to class, or school to school, children will not have mental imagery of the rack. They will forever count the beads!! I would like to reinforce the importance of holding the MathRack correctly! It should always be held with the red on the child's left so eye movement can go left to right, just as it does when they read. The point of the rack is to prioritize the 5 red, which must come first. Then the whites are being added onto the five. White to Right!

Let's be thrilled that this is not another decision teachers have to make... Just go with red and white beads! By using the MathRack consistently we WILL get the kids to be automatic with their facts by thinking flexibly about number through understanding not memorization!