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Erica Slate Young* (erica.slate@uah.edu). *Finding Ways to Evaluate Students' Development of Mathematical Habits of Mind.*

This paper will focus on not only my teaching philosophy and how it relates to fostering MHoM, but also on the lessons I've learned in my recent research efforts in implementing technology in math education settings. Put briefly, my teaching philosophy is this: In my class, the answer is worth very little; the solution is what is truly important. I want my students to understand the mechanics behind the skills they are learning, to understand a mathematical problem solving process necessary to answer complex questions and then, when appropriate, use technology to help find solutions. In my recent research, I have found the following system useful in evaluating student work. I ask, can they: find appropriate simplifications and approximations that allow the model to mimic the real system in an acceptable way; identify a complete enough set of variables and parameters to describe the system non-trivially; identify the governing principles: physical laws & empirical knowledge; choose the proper level of mathematical complexity; identify the satisfactory solution; visualize the solution in some way, revise the model if the solution doesn't match reality? I believe this framework could help others reflect on whether or not, and the degree to which their students are developing MHoM. (Received September 25, 2012)