

1096-D1-2104 **Clark Wells*** (wells@gvsu.edu), Dept. of Mathematics, Grand Valley State University, 1
Campus Dr., Allendale, MI 49426. *Teach What You Do.*

The bridge course at Grand Valley State University has been good at helping students learn how to write proofs, and this is a good thing. There is always room for improvement, and I contend that improvement in one particular skill could result in huge improvements in student success, with little loss (even gains!) in proof writing ability. That is the skill of *conjecturing*.

One goal of a bridge course, I suggest, should be to help students understand what mathematics really is. And really, which is it that mathematicians spend more time on, writing final proofs, or coming up with and refining conjectures?

Furthermore, a serious issue that continues to come up in our courses is ritualistic understanding of proof. I think students see proofs as jumping through hoops because they don't really see the value in proving things they know are true.

In this talk I will offer practical suggestions on generating student buy-in for what is likely to be a very different course from their experience as well as share several activities and methods of assessment that both give students authentic experience of what it is to do mathematics, and support them in learning to develop, refine, and communicate their results. (Received September 17, 2013)