



EGUsphere, community comment CC1
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Comment on egusphere-2022-16

Scott King

Community comment on "Building confidence in STEM students through breaking (unseen) barriers" by Philip J. Heron and Jamie A. Williams, EGU sphere,
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This is a really cool idea and I've been following it on social media. I'm glad to see such a nice clear writeup on your project along with some best practices. I only have a few minor comments, mostly along the lines of expanding some of your thoughts. I think about these issues a lot in my own intro STEM course for STEM students, so I could not help adding a few words of support along the lines of encouragement.

With regard to creating a neutral environment, do you have any thoughts for those of us who are trying to teach in a university setting? I still remember (quite fondly) a class I had in college where the professor (after the formal lecture at the chalk board) sat on the front edge of the desk and simply 'talked' to the class about experiences and ideas. The fact that I vividly remember this 30+ years later tells something about how personally engaging it was. That is an example that worked for me but that was an upper division course and I was already a STEM major.

It would help to clarify if you could expand a bit on 'Plain Speak'. Is there a citation to the 'Plain Speak' idea? I have read that some introductory science courses actually introduce more vocabulary than a first semester foreign language course so I tend to agree with you (I don't seem to have the reference to the statement above). I personally think there needs to be a balance here because the "Upgoer V" challenges, for example, while fun actually can force someone into such strange vocabulary that I feel they obscure rather than enlighten. Where is the balance? What is your experience? I would find some examples of 'Plain Speak' worthwhile to help my thinking. For example, in some AGU outreach literature they suggest avoiding using the term 'mantle' yet even my third graders Earth Science class introduced the idea of a crust, mantle, and core.

Your point about discussion questions with no right or wrong answer is a good one. I have been using this in my online course to engage the students and for them to think more broadly about the topics and share in a non-threatening setting. I find that works well in my online course. I get 80-90% participation whereas in class it would always be the same 3-4 people speaking up.

Cheers,

Scott King