

COMPILATION: circle whiteboarding (board meetings!) - how to do it.

Date: Wed, 12 Jan 2000

From: Dwain Desbien (Dwain.Desbien@emcmail.maricopa.edu, as of fall 2001)

Jane Jackson has asked me to post some information about how I do whiteboarding here at ASU and at CGCC. However, since a fair number of you don't know me a brief background might be appropriate. I am a Ph.D. student of Dr. Hestenes and have been with the project for 3 1/2 years. My focus has been on college teaching, mainly calculus based physics.

The term that has been given to my white boarding method is (this name came from others) circle whiteboarding. The physical layout is to *put the students in a circle with nothing in the middle* (this requires a fairly large empty space or tables that can easily be moved). *The whiteboards are then held in front of the students* so that all groups can see all whiteboards at the same time. When presenting, the groups can't focus on you (the teacher) because you are outside the circle. This gets students more engaged in the conversation and tends to allow for more student-student questioning as opposed to student-teacher questioning. Also since all whiteboards are visible to all, common themes can be skipped by the presenters after they have presented once, and this allows for the groups to focus on what is different about their whiteboard. I have found that often after a group presents, they will ask another group a question because they have something different than they just presented. The discussions are more robust, and since common material is not repeated in the presentations there is more time for real discussion, other topics, or going further into the model at hand.

The teacher's role in this is to only be a guide (a mostly silent one at that). Teachers will always think of good questions or will notice students who do not get what other groups are saying. By you being outside the circle, *you can "seed" a student to ask a certain question or get a confused student to ask the group to explain again* without the teacher being the one talking (seeding is the process of asking a student if they know the answer to your question and, if not, to ask the whole circle. This is done by quietly talking to the student while the rest of the discussion is going on.)

One of the biggest warnings I can give to someone trying this is to *be sure there is only one conversation going on*. Don't let smaller groups start discussing a part of the model while the larger discussion is going on. Also, practice at seeding and I have found that my voice is seldom heard in the circle and that the ideas are coming from the students.

There are philosophical as well as research reasons for doing whiteboarding this way. However, I feel that this email is long enough already. If you would like more information please feel free to email me.

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From: Joseph Vanderway <jvanderway@CSUN.EDU>

There are times when I use a circle plan as described above, usually when there seems to be less than the critical mass of understanding that makes a normal whiteboard discussion possible. With the groups in a circle, students seem more able to ask questions.

I call it a **board meeting**.

[Jane's notes:

1. David Hestenes likes Joseph's term, "board meeting"! Ms. Mangela Joshua, a community college instructor who learned Modeling Instruction from Dwain Desbien, made a video of his class. David convinced her to have one of the slides in her video say something like, "students come together in a circle for a board meeting". :)

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2. Dwain Desbien teaches the calculus-based physics course at a local community college. His 20 students had the highest FCI posttest class average ever recorded - over 90%! And 1/3 of them had never had physics before.]
