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>> I want to welcome everyone this Friday afternoon. Officially in fall. We want to encourage you to use the participants to -- you open up the window and find your name and then click on the blue more button next to it and use the feature to rename yourself to indicate the institution or campus you are joining from. Certainly if from outside CSU we would like to know where you are joining us from. You can also use it to share your pronouns if you would like.

Claudia has also posted in the chat how to find the recording to the session and all the webcasts in this series are equity engagement in the online classroom series as well as the serious that's my colleague Claudia -- Claudia post on alternative assessment. The recordings are posted in our calendar archive online and you can find listings for upcoming webcasts there.

Brian, I'm going to begin if you are ready. I will push record and we will get started.

Good afternoon and welcome to the sixth webcasts in our series of equity and engagement in remote classroom. I am Emily Magruder. A couple of quick pieces of business, if you would like to get weekly reminders for this series sign up on our mailing list. The link will be put into that shop a few times before we conclude today. I don't worry if you need to leave early, the workshop as they recorded for future viewing. We will put the link for accessing all the recordings into the chat.

Unto our chauffeur today. The webcast series addresses how we create virtual environments in which first-year students and all students can become self-confident learners. How do we design instructions or students make connections with each other come with us, and with other professionals in the University community? How do we leverage the of ordinances of academic technology and design synchronous and asynchronous activities to engage students more equitably than ever? Facilitating our session today is Dr. Brian Katz who is a few weeks into a new job as a mathematics education faculty member at the us you at Long Beach. Also the editor in chief of the American mathematical Society inclusion exclusion blog, part of leave editorial team at the Journal of Primus and a national team offering professional development for mathematics faculty learning to teach with inquiry.

Brian will model ways to use weekly readings and reflections to help students engage more deeply like taking a critical stance towards how learning and our disciplines work. He is going to invite us to read and reflect. Brian, let's begin.

>> Thank you and hello everyone. Welcome. As Emily said, weekly reflections is a key idea and as to big goals of disciplines want to call out potential co-presenters both of my cats were already on the desk in my apartment complex is checking the fire alarms so that might happen today.

This is a description you have access to the do's slides, I just wanted to be there if you come back to the slides later. What is the key idea? I think every course should teach students about learning and about how our disciplines work. I think every course involves learning and students interdisciplinary practices but what I'm suggesting is something meta-from that, the in addition to doing learning we talk about how learning works. In addition to participating in a discipline we talk about how it works in both of them from a critical perspective.

Let's do something. What I will ask you to do is -- the link in the chat will take you to this Google sheet. Let's say you are in room two in group 2, based on the breakout rooms. He will be working with multiplicity, pre-legitimate position on page 9. You click this link here and it takes you to the paper and you go down to page 9 here and you follow position to and read this paragraph and the transition to the

. Coming here instructions are written here he will scan those couple paragraphs for answers to these three questions is there anywhere in there that has a student move from that position?

An open some breakout rooms and automatically creates them and use the number of your breakout room to determine which rope you will use. We will take about X .5 minutes. Pick every quarter and get started and then we will need to share when we return.

? For those of you still here I just want to double check and make sure that you are opting to stay in the main room rather than join a breakout room? If you are having difficulty joining a breakout room let me know.

>> I decided to stay in the main room.

>> You. -- Thank you. No one was in your breakout room. Okay. Let me send a message to Brian. Looks like I can't send a message.

>> That's okay. I'm trying to hang out here. Thank you. If you're hoping to join a breakout room let me know and I will try to get a message to Brian. You might want to try again. Maybe those assigned to your room were slow to get in. If you hover over the bottom of your screen to more, if there's a notification for a breakout room you might join again.

-- Group 2 can you tell us about your position? Student I had the best person to work with so I will let him do it.

>> Basically how does a person get knowledge and truth for the position? Essentially their belief is individuals who are in position of authority whole truth and knowledge. So professors, anyone who is in a position of authority, clergy, may have what we would call truth. That is their perspective. How does a student view their role in learning from this position? They rarely challenge authority so that was interesting to read and finally, because they believe that those who are in authority whole truth over the knowledge of truth that they are loyal to those positions and they may consider a different point of view for a short amount of time but then revert back to the original sense of knowledge.

>> In particular there is a temporary nature of the things the authority don't know, that is temporary. You can speak whatever then and then it will become truth what is figured out. In the position 4 A, Katie, can you tell us what you read?

>> You are muted.

>> Sorry about that. I was saying I cannot read the back of a cereal box 6 minutes let alone this. What I took from it was that the students start out with their knowledge referring to or deferring to relationships as well as authority and then also when authorities don't seem to know that everything goes and it made me think of our current political climate where none of the authorities really know where they are counteracting one another depending on who you are listening to. Ultimately the switch and knowledge was students start out looking at the instructor of what do they want from us versus how do they want us -- what ways do they want us to think? I was sharing with Brian just reading this tiny little snippet at first things seemed counterintuitive to me as an instructor because we're not trying to tell them not to think but rather think in itself. My favorite line to my students is question the question that your professors are posing or the world is posing and also question the answers.

>> Each of you, my students would have read -- try to have read the whole paper and they would have a little more sense, you are probably better readers that they are seeking get more out of these short snippets we need to assemble all the pieces. I don't see any writing from position five but that is relativism which means in this case knowledge comes from arguments and evidence so this big transition.

Going back to presentation. I would have spent a whole class on this was students they would have read this before but we get a sense of the kind of thing we are asking them to consider. What are some of the big ideas that come up in this conversation? We hit on these big stances that knowledge is absolute and comes from individual perspective and evidence in comes on the assumptions you make at the beginning of those arguments. That is this big epistemological idea but the paper makes other connections for me. I think position? You may have seen how students often segregates the disciplines they put math and science and social sciences and the other and I disagree that they do this thank and that's a moment where you can have a conversation. You can talk about the goal of a college education that they make arguments and explain why the writing that was working for them in high schools no longer working in their first year of classes. I asked them after they read this whole thing why I had built the course the way I have and they use it as a lens to analyze the ways and pushing them to justify or attend to peers thinking.

I asked them to self-assess so they think about where they are and what that means about how they engage with the things and asking them or other faculty are asking. And then it's not as obvious from the pieces we talked about today although it is salient for Katie's shock. Identity comes up in this chapter and her junk was multiplicity Corlett where you have the seven authorities now in the stuff they don't know and I get to decide there. Like oppositional. Perry's work was done with very privileged white dudes in the 50s it wasn't unusual he miss things about identities and women's way of knowing is a famous follow-up to this where you know the voice said other kinds of issues and explains things that Perry didn't understand.

As Katie pointed out trusting authority. Perry noticed a change during his study from the 50s and 60s that he attributed to the public rhetoric around the Vietnam War, Korean. Whatever. The public wars that were happening during the times of the study. And I think that's totally salient for our total discourse and current understanding of how college students are coming and maybe do a list than they were when I started teaching 10 or 15 years ago. It all just is in some ways.

That is one thing I asked my students to engage in. But the session is a little more about the idea of giving them a weekly reading or reflection. Preparation of categorized five kinds of reflections that I asked them to do the first is personal context and reflection. A common practice in my fields of mathematics to ask students to write a math biography because they had a lot of trauma and they have goals and all these other things so they tell us about their past and in meaningful ways. The things that are italicized our discipline Pacific in this list here but I think the big theme is generalized.

Those personal context of reflections help me connect with my students. I get to know a lot more about them and understand what makes them tick and how to support them better as individuals because I asked them to do reflection. The second category is thinking about teaching and learning and the one we looked at is in that category. There's metacognition, sometimes we read part of what college students do in contrast to strategic versus deep versus service, strategies and approaches to learning. Blue's taxonomy is helpful because not that I'm asking you to recall budgets synthesize a now a shared vocabulary that helps you understand why what I'm asking you is not quite what I am getting. And then there is some discipline specific things like calculus concept, argues interaction math class students learn a lot more even if they feel like it is harder where they are not learning as much and that is powerful for me.

The next few category self-assessment. I love this self-assessment by ask my students to provide evidence of growth where they give two pieces of work and show how it has changed across time or they consider the department learning objectives and how much progress they made or what kind of artifacts they might acquire to demonstrate they may have that progress. One of my favorites is asking them to tell me about some learning they don't think that has been captured you're just making a case for something they learned that I may not have noticed because of what I was looking at.

This is empowering for students but also helping them think about the learning in many ways.

In many ways my favorite is critiquing the discipline but these are specific to mathematics but I think we know how to critique your own disciplinary practices. Mathematicians lament by Paul Walker is a horror story of imagining artist talk the same way math was taught in the trauma that would come from that. My students, especially future teachers read this and they say I have to think about the nature of mathematics so I don't do that violence again to another generation of children it or gives them words to say I'm not the only person who has these traumas.

The other readings are things that critique the sociocultural aspects of my discipline, political can no seat is a paper about the idea of training teachers to work in vocal systems otherwise they will be able to enact any of the pedagogy or content knowledge that they developed. We step outside of mathematics and think about the context.

In the final one that I think we all do but I think we can elevate his disciplinary practices. Not just asking to participate but making the hidden curriculum over. That in mathematics we say that is just how the princes so therefore you should just do it that way and we are stepping back and sang why is that the thing that convinces mathematicians in the way we do it and what are the if ordinances are doing it that way and the consequences of doing it that way.

And often mathematics you think of a thing as abstract and universal if you look at the details of how it works it is inherently sociological and ambiguous and that critique opens up a lot of space for them to rethink what the discipline can possibly be.

Why do I do this? I see huge benefits. My students can understand why I'm doing what I am doing in the courses they learn better. I already said it makes the hidden ideas overt which is important for first-generation students and better connected to my students and challenges the neutrality of my discipline in particular and it allows me to bring up some things that otherwise may be hard for some to bring into a math course. Lift up by Norte students and discussions about exclusion from the discipline and connections to things like when -- [Indiscernible] Been having these critical conversations in the classroom we want to talk about these things and he feels connected to what we have been doing not that we are day when things are awkward. It's what we talk about in math class.

We only have about a minute and a half left but I would love it if you would brainstorm. If I made a connection for you if you have a paper that you think would do this for your discipline or something else or particular to -- critique of your discipline but you want to incorporate can you send it in the chat and I think maybe we will talk about that if we have any time for questions you will have access to the slides as well every paper I cited has a reference so I can come back to this when we are done so you can capture this.

>> Brian, thank you. You did in the chart exactly what I was thinking that you have begun to invite us to create reading this for our disciplines that would enable us to make these conversations part of our class.

I see that Kent has a question and let's see, a brief question.

>> You said a few minutes ago something about the way you build your classes. Can you talk about your philosophy of how you build them?

>> My students try things before class we come together to talk about the ideas they generated and we have a Congress where we sort of agree upon things and elevate those ideas. Not that different from what I asked of you and actually shocks a lot of mathematicians at the same pedagogy approaches used to teach mathematics are appropriate for engaging with math education and social science. My students are used to lectures. This is explaining why my classroom is not about transmission.

>> Thank you.

>> Fantastic. We've opened up a really rich conversation and I am once again they unenviable position of interrupting a rich discussion to bring our session to a close today. Brian, thank you so much for sharing this approach to positioning our disciplines so that students can think about where they are in their thinking and learning journey. I think this is a crucial important time for this discussion. This webcast will be posted, the recording will be posted in the professional development calendar archive along with the presentation and all the resources that Brian is gathering. She readings in the chat and will add them to the resources that we provide. Please join us again next Friday at 1:00 PM when our presenter will be Kevin Kelly, lecturer and equity leadership studies and -- author of forthcoming book on online education and a keen observer of this moment in higher education and Kevin's topic will be increasing learning equity through well designed online assignments. I also want to give a plug to the series moderated by calling Claudia who has been with us today. If you're thinking about alternative ways to assess learning join our series on Tuesdays at 1:00 PM. Check out the CSU calendar for more information about the upcoming topic. The back of these are amazing times and we cannot thank you enough for all that you do for your students, your colleagues, University and for the Chancellor's office. Keep it up, take care, and stay safe. We will see you next week.