

FLW: Using Group Work Effectively

SPEAKER 1: So without further ado, I will let our guests introduce themselves. Thank you again for coming.

SPEAKER 2: Jennifer, you're up.

JENNIFER ROBBINS: So my name's Jennifer Robbins, and I serve as the Associate Dean of Professional Education in the College of Pharmacy and Pharmaceutical Sciences here in Spokane.

I joined the faculty at Washington State University in 2008. And at that time when I was hired, I was hired to be a faculty member who teaches in a small group setting. So I started with about 30 students at a time who would rotate through several different lab sections. And in those lab sections, I started working with them with group work.

After I took on my administrative position, I was assigned, instead the lab-based classes, big lecture classes. So currently, I am tasked with teaching four different courses within the Doctor of Pharmacy curriculum, and I have students across two different locations, 110 here in Spokane and then 30 in Yakima.

In the College of Pharmacy, the expectation is that all of our courses that are taught are active and collaborative, so our students do a lot of group work. We also have a high level of first generation students. Right now we have about 38% first gen.

So all of my students are graduate students. They're working on their professional Doctor of Pharmacy degree. But in having conversations with Clif, it was interesting to see the number of similarities in the challenges and the reasons why we're using group work between undergraduate and graduate education.

CLIF STRATTON: I'm Clif Stratton. I teach in the Department of History, and this year I became the Director of University Common Requirements, which you all know as UCORE. And my context is quite different. I teach almost exclusively first-year students with a few exceptions here and there in History 105, which is The Roots of Contemporary Issues.

So it's a history course, but its main mandate is not as a gateway to the History major but as a common experience for all first-year students here at WSU. It addresses five of the seven learning goals that the university has set forth for its undergraduates.

My sections are typically around 75 students in number. And I would say upwards of 95% of them each semester are first-year students, and in the fall, they're first-semester first-year students. The vast majority are non-majors. But the percentage of first-gen is about the same, about 40%, which matches the university averages, as well.

And in large courses-- and some of you probably teach courses much larger than that mine-- it can be difficult to do these kinds of active things in the classroom, where students are collaborating with each other. Rob and I were just talking about how he really struggled to let go of lecture in his class.

And so we'll be talking about-- and I'll go ahead and transition here-- what we've called a framework for group work. And we want to preface this by saying that if at any point in the discussion you have questions, or you want clarification, or you want to make a comment-- and this can flow into a discussion. We have a plan, but we're not here to lecture. We're here to work collaboratively.

So our framework here is three-part. So we want to address, first, set up and then facilitation, so what's going on while students are actually collaborating. And sometimes, it'll be, as you'll see, a little hard to distinguish set up from facilitation. And then follow up, assessment of learning, both on the student's part-- while, particularly on the student's part--

So the way that Jennifer and I have the set up is that, since we're in different places, we've determined the flow of-- they're not handing things off too much across the waves. But I'll start talking a bit about set up, and then Jennifer is going to pick up about halfway through. And then she'll move into facilitation, and then I'll pick up. And we'll trade off that way.

So I'm going to start by saying, for set up-- and the way we've really framed all of this is around a series of questions to ask yourself. All of us are going to have very specific circumstances, numbers of students, experience levels of students, how much content we must cover versus how much time we can devote to practicing skills.

And so a lot of these are questions, and then we'll talk a bit about our approach to them. But we would encourage you to be thinking about what your approach might be, given your context. And again, if you'd like to share that or have questions, you're welcome to jump right in.

So I guess the first question would be to take a step back from the whole thing. I suppose you're all here because you find student collaboration in class, and perhaps out of class, a valuable thing to do. But I think it's worth reminding ourselves when we're going to have students work in groups, whether that's really regularly, like on an almost daily basis in our courses, or whether it's staged more-- maybe there's time once a month or twice a month devoted to it-- to think about why we're doing it.

Is it to fill time? Is it so that you don't have to lecture for 50 minutes or, God forbid, 75 minutes? And so that question is one of the first ones to ask yourself. For me, it's a two-pronged, maybe multipronged, answer. One is that there is real inherent value in students actually practicing this skill of collaborating with each other, whatever the content is.

I'm working on an initiative at UCORE that is trying to incorporate core competencies identified by a collaboration between universities and employers. And collaboration and teamwork has been at the top of their list, or near the top of their list, for 10 plus years. So these are not skills that are secondary to what students need when they come out of our programs.

And yet, if you look at our learning outcomes of the baccalaureates-- so this wouldn't necessarily-- I'm not sure what the relationship is with graduate education, but for undergrads, in any case, teamwork and collaboration is not really explicit in the goals that we set forth. And so we may see just assume that it happens. But we don't task particular courses or particular programs with it. In fact, advancing that-- it's really up to departments to do that kind of stuff.

So that's one way that I approach that question is that this is a really valuable skill for students to be able to do, to navigate conflict with each other, to organize tasks and execute them as a group, not just the critical thinking around the content that I'm teaching them. In my context, it's history. In Jennifer's, it's pharmacy.

So that's one thing to ask yourself, this philosophical question. Why have them do this? What do I want them to get out of it? Is it that this is an effective way for them to remember content? Or is it the actual activity of negotiating with each other over a question or a problem that's more valuable to them?

I'm going to go to the next question, how do we go about forming groups? And then I'm going to hand it over to Jennifer, and she can pick it up on--

AUDIENCE: Can I interrupt from the WSU Tri-Cities campus for a moment?

CLIF STRATTON: Sure.

AUDIENCE: For the like that you provided, there are six people on it, the Tri-Cities, the Vancouver campus, the Zoom link. But you guys are not connected to that. So I was there first and ran over here to tell you that there are five people trying to get into this conversation that aren't currently able to with the current Zoom meeting. So if there's a way you could either reset it out or give it to me so I can tell them-- because there's still five or six people live in that Zoom just waiting. Sorry to interrupt.

Can you call me at 5-0-9-4-3-2-3-3-7-3?

Can you repeat that number one more time?

5-0-9-4-3-2-3-3-7-3.

Sorry, go ahead.

JENNIFER ROBBINS: Thank you.

AUDIENCE: [INAUDIBLE]

CLIF STRATTON: Oh, hang-on. I got to refresh here. If I stay on a slide too long, will it go to sleep?

AUDIENCE: Yes, sir.

CLIF STRATTON: I'll just toggle back and forth occasionally. So the next question, how to go about forming groups-- this is also something that involves a fair amount of consideration and should be specific to your context. I'll talk about my context and the way that I do it, usually. And then I'm going to turn it over to Jennifer, and she can talk about hers, which I think is different. When we put this presentation together, we realized that we have different approaches to this.

In a class of 75 first-year students and the nature of the course, where we're working through-- it's organized around three-week case studies. We focused intensely on a particular case study for about three weeks, and in History, they're reading primary sources. They're reading some secondary sources, histories of the topic.

And much of the group work that I'm having them do is a daily thing that doesn't necessarily require that they work with the same people each day. But that, actually, variety might be a positive thing. So I tend to approach this a bit more loosely.

I don't often assign individual students to particular groups, though I do try to make sure that there is, at the very least, a gender balance. I don't have all of the women working together and all of the men working together. So sometimes, that involves moving people around. Another approach to that would be to decide how many students you want in a group, give them numbers. And then have them find the other people with the same number, and randomize it that way.

The reason I do that is to provide a little bit of flexibility so that if students are absent or students dropped the course, that I don't have to do as much managing of the group size and composition as I might otherwise have to. When I teach smaller courses, may be capped at 35 or an honors course at 25, those usually involve semester-long team projects in which having consistency is paramount. But I'm going to turn it over to Jennifer, and she can talk a bit about her context.

JENNIFER ROBBINS: Sure, so a couple of the courses that I teach-- I teach an Introduction to Therapeutics course. I teach Leadership and Professional Development and then Student Success and Professional Development. So two of the courses, Student Success and Professional Development and the Introduction to Therapeutics course-- they are in the same semester.

And so one course has required attendance, the other course does not have required attendance. And when I set up teams, I set up teams so that they have the same team for both

courses, just so that it's easier for them to keep track of. And then when they come into the rooms, they always know the space that they're going to sit in.

When I think about the groups that I form, building on something that Clif just talked about, the importance of really making the groups diverse in the way that the groups look and what the individuals actually know, so equally distributing the resources in a fair, equitable, and transparent manner--

So for example, for the Introduction to Therapeutics, the top 200 drug course. This is a first-semester, first-year course, one-credit course. Over the semester, we cover a lot of information. We cover 200 drugs, where they have to know the brand, generic name, contraindications. They have to be able to counsel on them and describe, clearly, how those drugs work.

And so when I'm thinking about how to form the groups, I think about the course content and the relative expertise that my students could bring to the course. So I have everybody, the first day of class, sort themselves, and then we randomly count off and put them in teams.

So a question that I will ask is, OK, of those people in the room, where do you qualify your experience in pharmacy? Have you had a lot of experience, and you really understand how pharmacy works? So maybe they worked as a technician. Or are you on the other side of the spectrum, and maybe you've shadowed in a pharmacy one day, and all that you know about pharmacy you've researched online?

I'll have the students with a lot of experience get into a group on one side of the room, right next to them, people who feel like they have a little bit less experience, some that have minimal experience, and then people who feel like they have scant experience in pharmacy. Within those groups, I will also ask, OK, within your group, if you yourself or you have a family member who has lived with a chronic disease that is treated through medications, then stand on this side of the group versus the other side of the group.

So I will have all 110 of my students lined up, and they'll be sorted in this way. And then I will have them count off to the number of groups that I want to have. This takes, maybe, 10 or 15 minutes at the beginning of class, but it allows the students to see how I've created the groups in a very transparent manner so that they know that I didn't put them with somebody else and that I'm not trying to stack the groups in other ways than what I'm making transparent to them. So that tie goes up forming groups.

Communicating expectations, I think, can be a little bit harder, especially with group work, because there can be a lot of different layers to the group work and a lot of different layers of the expectations. I think there are really two sets of expectations, one that we think about a lot and the other one that we don't necessarily invest a whole lot of time thinking about.

So the first type of expectations is the teacher or classroom expectations. And I think, as faculty, we do a relatively good job of this. We put the information in the syllabus. We talk about our expectations the first day in class. But then are we doing more beyond that? I think that it's helpful to have reminders throughout the entire semester, so having verbal reminders to students and pointing out when the students are meeting our expectations or not, and helping them readjust their behaviors.

Having accountability through assignments and assessments so that their behaviors are reinforced by how the course is actually structured-- so if one of your expectations is that they come to class and they do group work, but there is never an assessment based on any of the group work, then it's going to be problematic.

The third piece about reminders is looking at expectations and showing those expectations. So for example, for my students, during the week I expect that, from an email perspective, that if I send them an email, that they are going to respond to me within one business day. And I don't expect them to be checking their emails at all on the weekend. So that expectation that I put on them-- that is an expectation that I hold myself accountable for. So it's not only thinking about what expectations you put on students. But are you actually showcasing those same expectations back at them? Are you modeling it?

The second level of expectation is the peer-to-peer or the student interactions. I think, often, we forget about this, that when students are working in groups, there's some unsaid expectations that they have that they bring to the group. So on the screen, Clif has just put up there a sample team contract. This team contract-- we actually take a day in the student success and professional development course, and we have the students work through this team contract so that they can identify how they're going to function and what their expectations are for others.

And their peers can share that with them. So there's a section on work quality, team participation, personal accountability, and-- I can't see the last one-- how to navigate disagreements. So a lot of the frustration that comes around group work is students working with one another and trying to figure out, OK, how do we do this as quickly as possible? And how do I do this so I don't have to deal with any conflict?

When you put a group of people together, there's going to be some level of conflict. And so if they've had discussions ahead of time to talk about, gosh, here are our expectations for work. This is what I'm really passionate about, and this is what I want to work on, making sure that cooperation is equal and the distribution of tasks is equal, making sure that people are keeping a personal accountability.

If you set up some of those boundaries, then you're less likely to have disagreement. If you've also had conversations about if a disagreement does arise, what the preferences of the people in the group are for dealing with those disagreements is important to talk about. What's

concerning right now with my students I'm seeing a pattern where more of them want to deal with disagreements using technology.

So they want to deal with disagreements texting or disagreements via email. I always try to redirect them, and if they have any disagreements, try to have them do it in face-to-face or live context, so using Zoom or using the phone, rather than just using texting. So that is the team contract.

Communicating expectations to students about why group work is relevant-- I think what cliff talked about was spot-on. The expectations of employers-- And. I looked up a study. It was from USC. They said, one of the most important things that we can do that employers expect of our graduates is what they defined as third-space thinking. With third-space thinking, they want students who can look at a situation from a 360-degree view so that they can ask multiple questions about it and see it from just more than just one perspective.

They want our students to be culturally competent so they can work with a team of diverse individuals. They can serve diverse individuals. That's important. Empathy, I think that one's pretty clear. Adaptability, can they be placed in different scenarios and adjust appropriately?

And then they also want to see intellectual curiosity. How adept is this person at asking really great questions about the situation or task that we are tackling? When you have students who are working in group work, they hear other people's questions and get more adept at asking those questions.

So with our students, I think it's important that we make the case that group work is important-- it's going to help them develop skills that make them competitive within the modern work environment-- and that it's hard, that some of the difficulties that they encounter within group work is actually going to make them more successful in the future in our modern digital technology environment.

Do you want to go? OK, and then the next step-- once you set it up, the next thing that you do is monitor and facilitate the learning environment. And so the different task types that you can employ during group work-- Cliff has put a list up there. So there's sorting, sourcing, analysis, application, and conceptual design.

So when I'm thinking about the types of activities that I want my students to do, I want them to be really important activities that are going to challenge them. It's not just simply recalling information and blurting out answers, but it's thinking deeply about the topics that we're working on and then being able to articulate the why, or their thought process behind what they're doing.

So with my students and the Introduction to Therapeutics course, something that I have them do is I will have them take drugs, and I will have them compare the drugs to one another so that they can see similarities, and they can see differences. So instead of students just memorizing

the information, they're doing comparisons, with the hope that that will anchor better in their brain. And they'll be more likely to remember it.

AUDIENCE: [INAUDIBLE], Jennifer?

JENNIFER ROBBINS: [INAUDIBLE] oh, yes.

AUDIENCE: Can you clarify? You don't actually ask your students to take drugs, right?

JENNIFER ROBBINS: Did I say I have them take-- no, I have them take their list.

[LAUGHTER]

AUDIENCE: [INAUDIBLE] remembered that class.

Maybe.

Depending on the type of drug, right?

JENNIFER ROBBINS: No, I did not have my children-- my children? Now I'm calling them children.

AUDIENCE: I'll think we're all going to enroll in your class.

Where do I sign up?

JENNIFER ROBBINS: There is one course in the College of Pharmacy where we have the students have the opportunity so that they can taste drugs if they so choose. So in our compounding course, they will compound some antibiotics. We have we have access to waivers, and if the students wanted to taste what the drugs taste like, they can. We don't have any controlled substances or narcotics that are used in that way. So when I say that they're taking, I mean that they're taking the information out of their brain. And they're placing it on the paper, and they're doing comparisons. Great question, thank you.

AUDIENCE: [INAUDIBLE] recording.

JENNIFER ROBBINS: From a sourcing perspective, I have students-- if they have a question, they have to go to reasonable resources. They can't just Google it. Analysis, I'll have them presented with a patient case, and with that patient case, they have to break down what they believe they're going to do and what options they have available. So maybe a patient's on a drug, and that drug is causing some serious side effects. What are they going to do about it?

Because there are several different options that they can take, and no one answer is necessarily better than the other. And so I think that also falls into an application and conceptual design. A

lot of what I have the students do, after they've sorted and they've taken the drugs, but not really taken the drugs, then each week I have them work through cases.

And the cases are rooted in reality. These are things that they're going to see when they go out and they work with the community. And they are having to take that knowledge that they're learning, and actually apply it, and apply it in a way that truly matters.

So the second question, how do you monitor the groups to assure that they're staying on task? I mainly walk around the room, and I'm listening and asking questions of them. And then if I notice that there are themes or there's a theme of a confusion with several groups, I will bring everybody back together and provide some clarification.

It's amazing what your presence, just moving around the room, can do. When you first do it, the first few weeks, they're put off by it. Like, oh, why are you listening to our conversation? What's happening here? And then after a while, they just get used to your presence, and then it's OK.

When I go around, I don't ask questions every time. Sometimes I just listen in and then move on. And then sometimes I do go around, and I will ask a question.

Giving clear instructions-- every week, we do, basically, the same thing. So since we're doing, basically, the same thing every week, the students have a clear understanding of what is expected of them. They're given an electronic worksheet every week they have to work through.

And then the stage in which they I want them to work on is posted on the board. So I give them verbal directions, and then if they missed it, they can always look on the board. So I'm now going to pass it off to Clif. He can pick up and fill in his thoughts.

CLIF STRATTON: Sure, I'll say that, for my context with a lot of first-year students and fairly large sections, I tend to spend more time on task-type and sorting, sourcing analysis. At that level, I'm thinking about, what's an appropriate kind of task for students who are A, non-majors, first-year college students, conceptual design?

We do a little bit of application, some scenarios, imagining they have this position, and they're tasked with writing a justification for a policy, using historical information. So a lot of these things will blur together. They have to find appropriate evidence from sources but then apply it in some way.

And then I try as best I can, to scaffold that over the semester so that the task type gets a little more challenging at the mid-way point, rather than in the very beginning.

In terms of monitoring, I take a similar approach. Sometimes, if the task is long enough, like if it's taking the majority of a class period, I do try to make a point to get around to every group.

For example, if I'm asking them to identify appropriate examples to back up a claim that they're making in the group, I'll make a point go around to all of the groups-- there might be 15 or so in the class-- and just check in to make sure that the examples they've selected-- they can articulate very quickly what their reason for that selection was. Nothing what's weird to me, like, that doesn't really seem appropriate here. And that they're kind of moving ahead--

Other times, I'll sit with-- if I know I won't have time to get to every group or even the majority, I'll sit with one or two groups, and listen, and maybe even ask questions, involve myself just a little bit more with them, prod them to think about something in a different way, and make sure that I'm varying that from day to day. So I'm not just going to the same groups.

It can be hard in some of the physical spaces that we teach in to get to some of those groups in the center or in the back, depending on how many bodies there are in the room, relative to seats. But I think it's important to try to do that as much as possible. Those of you that teach in Todd (Hall) know the limits of that kind of stuff.

So in terms of giving clear instructions, I find that no matter how many times I say something out loud, somebody always misses it. So Jennifer's point about having explicit written instructions, either up, projected on a screen, or if there's, in fact, a type of worksheet or activity that you're providing them in hard copy or online, that those instructions are very clear there.

And this really leads into a question that I realized, as I started doing group work more regularly-- I kept having to answer it. So again, being very explicit about what is it that groups are producing-- I had a tendency, and sometimes still do, to think about group work as the same thing as discussion, in which they just discuss something.

And what they actually do with the things that come up with is secondary, or I haven't thought that through. So giving some very explicit instructions, like if you're asking them to write collaboratively, how long should it be. What kinds of things should go in there. Are they to present something? If so, do they need to elect a spokesperson? What is the final, for lack of a better term, product that the groups are creating through their collaboration with each other?

And then this last one having to do with monitoring, and facilitating, and how to create an environment where students are willing to engage-- we do have a tool for us here. I'll go ahead and put it up here. That is something, maybe, you think about unconsciously, I guess, or you know inherently. Maybe, I do this pretty well, but I struggle with this. This is from one of the resources that we'll share at the end, as well.

Developing a culture of thinking, a way to assess yourself, not just in facilitating group work, but in your classroom atmosphere, in general, so things about ensuring that all students respect each other's thinking-- what are the ways in which you make sure that that happens? Diversity of group composition, or team composition, is a way to do that.

I listen to students-- I'm skipping down near the end. I listen to students that show a genuine curiosity and interest. And I think that the outcome of group work can really say a lot about how you convey that to students.

If they're just going and talking to each other, but then there's no, OK, let's all come back together-- let's talk about what group C talked about, Group H, whatever, however many you want to get to, demonstrating that what they've done is actually contributing to a greater goal that you have in the class, whether that be an individual assignment, or an actual group assignment, or just an understanding of concepts that you're tasked with helping them achieve. Jennifer, did you want to say anything more about this part?

JENNIFER ROBBINS: It's really remarkable, as faculty, how much we can influence the culture of learning in our classrooms. So just by changing some of the simple words that we use, so a phrase like, what is the right answer, students are going to be looking for one specific answer.

And what are your thoughts about this case that could be leaning towards a correct answer? Those, you will get two different types of answers from students. One is more on the why, the thought process, deemphasizes wrong versus right answers. So the words that we use, the approaches that we take, the structure that we create can be really important.

With this tool, there are several other self-assessments that are included in this book. We just took one out for a quick example, but there is the self-assessments about expectations, language, time, modeling, opportunities, routines, and environment that you can look at. So are you unintentionally taking some approaches that are either supporting or undermining the work that you want the students to do?

And this is a nice self-assessment, because you can go through it. You can assess yourself. And then you can either throw it away, or put it in a drawer, and then understand more about who you are, what your approaches are, and things you could potentially change so that you could be a better teacher. And it doesn't have to be anything that's associated with promotion, which is nice.

CLIF STRATTON: We wanted to move to follow up an assessment of student learning and then make sure that we have plenty of time for discussion. Again, you're going to see some questions up here, particularly this first one, how did the group activity contribute to larger course outcomes and/or assignments? That's something you really want to think about before you have them work groups, before you give them particular instructions about what to produce, what I was just talking about a few slides back.

For me, when I have students work in groups, I mention that a lot of what I'll have them do is to use the sources that I've assigned to them to articulate examples and to do a little bit of written collaborative writing, usually very short things. I make sure that they can accomplish it within the time frame of the class period.

But with the larger goal-- and this is where I often have learned I have to be very explicit with them-- is that these are microcosms of a larger assignment that I'm asking them to do, whether that's related to the content, like a longer, written piece, where they're presenting an argument and using historical evidence on that particular topic, or whether it's in their research project.

I have them do an individual research project. They can apply some of the same-- just finding appropriate sources, extracting the appropriate examples to commit to build a case-- so I have to repeat those things, and I have to be OK with having to repeat those things to them. Because those connections aren't always clear, that there's a purpose to these smaller things and ask you to do together and some of the individual work that you're accomplishing in this class, as well.

In terms of students assessing peer-to-peer learning and learning about themselves and what they're capable of, we've got, of course, this one. That's on our last question. I've gone about this a number of different ways. I'll just mention one, and then I'll turn it back over to Jennifer to help with her specifics.

I've had students-- I'll ask them to do a kind of independent reflection on group work and ask them some very targeted questions, like, going back to that team contract, how did you navigate conflict when it arose? And give some examples of when conflict arose.

I tend to use that more when groups have been working together on a project throughout the semester. I tend to use it less when the groups are less organized and they're sort of one-offs for, maybe, a class period, or for a week, or for a case study.

But I definitely think there's some value, even when you don't have groups committed to each other over the semester, to be able to have an outlet for assessing how that activity contributed to their own either knowledge of the content or their ability to develop that skill of collaboration and all of the things associated with collaboration. We don't have a model for this in the presentation, although, perhaps, there's one in Richardt, Jennifer? I don't know.

JENNIFER ROBBINS: No, not that I can think of that I've used-- I've used a lot of different peer-to-peer evaluations, and unless you give them very explicit training and expectations, the students are going to gain the system every single time. And I've tried several different ways.

So I had one way where I said that you had to rank students. So you had five students in the team. Somebody had to get a five. Somebody had to get a one. And then my students pretty quickly figured out the math so that everybody got the same score, which I appreciated, that they were being very democratic about it. But they didn't they didn't meet the expectation that I necessarily had for those evaluations.

With health sciences, there's an expectation, as a health care provider, that you're consistently giving feedback to others. So it's a core part of our curriculum, so we take time to train our students to give some constructive feedback. They still struggle in this area. So I think there's

value in it, just to give students an environment where they can start having some of these conversations and start thinking about how they would give feedback to somebody who is a colleague, who is a peer, or maybe even feedback to somebody who is a superior.

Thinking about how students learn about themselves and what they are capable of-- when I was looking at this question, something that I really thought about was the Dunning-Kruger effect. Does everybody know what the Dunning-Kruger effect is? [INAUDIBLE]

So Dunning Kruger-- it's the effect where when you try to do something the first time, you think you're really good at it, until you actually try to do it. And then you find out you're terrible, and you go to the very bottom of the confidence. And then over time, your confidence can rebound.

And I think students experience that a lot in our classrooms, and so if we can give students an opportunity, at the beginning of the semester, to say, OK, throughout the course of the semester, this is what we're going to try to do-- so I'm going to have you sit for the final assessment now and just see how you do. And so the students sit down at the assessment and think, I'll probably do pretty well. And then they end up getting their score back, and they get 30% or 40%.

All of a sudden, that student identifies that their confidence was mismatched, and they're much, much more likely to engage with the course material. And then throughout the course, you can point back to that experience and say, hey, remember when you couldn't do this? And now you can. You're more efficient. You're more effective, and your confidence is higher. So bringing those opportunities back up for the students so you can point them out to them, and so a student could reflect, by themselves, on that.

Our last question, how do students give feedback about the learning environment and the instructor? Well, clearly, through instructor and course evals, but is that really helpful so that you can make minor modifications throughout the course? Probably not-- so this is another tool that you can use, and this is a tool that you can hand out for students at the end of class. It can either be paper, or it can be on Blackboard.

And what a student would do is they would go through this, and they would look at the different categories. And they would identify, OK, what's the one thing that we do the most? What's the thing we do the second most? And then what's the third thing?

So if you're expecting the students to be wondering, raising issues, and showing curiosity about what we are studying and they're telling you that they're mainly reading, listening, and getting new information about the topic that we're studying, then the culture and environment you're creating is probably mismatched with the culture environment that students are actually expecting. And it can be really interesting to get this feedback.

There are also some questions at the bottom that are open-ended questions. One is, as a learner, it would have helped if I had-- and then they can fill in the blank, so the student's ownership. What could I have done so it would be a better learner in this environment?

And then the second question, as a learner, it would have helped if the teacher had-- and then they'll fill in the blank. I can guarantee you one question that you will get is that the students which the teacher would be more explicit about what's going to be on the exam. You'll get that every single time.

But you'll get a lot of really good feedback from students, and they'll point some things out that you're doing within your teaching that is, maybe, undermining the environment that you can't necessarily see, and again, another great tool that doesn't have to be connected at all to promotion but can help you figure out and adjust your teaching. So when the students do the end-of-course teaching evaluations, you can already predict exactly what they're going to say.

And so the next slide is a wrap-up slide. So this is, again, our framework for group work, as we've been talking. You can probably tell that there's quite a bit of overlap. And Clif and I talked about this, that this actually, probably, would have been a better Venn diagram than three separate things. Because when you have group work, you are consistently setting things up, facilitating, and assessing, and it's more of a loop and things that are connected to one another than just three separate activities. Clif, last thought before we end?

CLIF STRATTON: Well, we have some resources here. None of these are the silver bullet that will solve all of your problems, but one of the ones that we've actually pulled some of these examples from is *Creating Cultures of Thinking*. And some of these you've probably seen. I think two of these, Karen Weathermon, who runs first-year focused program, handed me when I got here at WSU. She was like, here, have these, *Collaborative Learning Techniques*, *Engaging Ideas*.

This missing course book is really more about the fact that most of us, unless we got PhDs in the College of Education, are not really formally trained to teach in many of our disciplines. Or maybe we have one course. But we spend a lot of our time doing it. And so this author-- this is a brand-new book, in fact-- has helped think about that. And there's a bit in there about group work, not a ton. But it's helpful reminders. I guess we want to open it up for discussion at this point. I'll let you guys talk.

AUDIENCE: So I have a question. It's in regards to Jennifer, going back to-- I really love the fact that you do allow the students to do a assessment of where they are, currently. But you do post-assessment of where they have landed, pretty much after the course, after the period of doing collaborative work together for over, say, that semester so they can see, OK, have they improved in some of those core competencies or any of those skills they've been lacking or thought they were superior in?

JENNIFER ROBBINS: Sure, so actually use my final assessment in my course as that pre-assessment. And so I let the students know, here's the final. Here's what you're going to see on

it. The questions are clearly going to be different, but the approach and the objectives that I am covering are going to be the exact same. And so students have the ability to compare their first score to their last score so they can see how they've grown.

When you have projects that are a little bit more-- they're softer they're more subjective. That's harder to do. So I don't have a great example of that.

AUDIENCE: That's OK. That's off the top of my head.

CLIF STRATTON: I could imagine. I have students do a lot of writing on exams in my course, and I could imagine giving them that writing prompt cold. And like, see how it goes. And they'll struggle, and they won't do very well.

I think there's ways to adapt it, as long as they know that it's not a high stakes, like their grade hinges on whether or not they do well on this first thing that you know they're not going to do well on. They need to know that ahead of time but also take it seriously enough.

AUDIENCE: I tried to do that. So I teach algebra over at Lewis and Clark State College. And so I try to do that, also, while I am talking in the beginning of the class session and intermixed throughout the class session. And so, in learning the students' names, I'm able to ask the same questions over, and over, and over again. What is slope? Eric, what is slope? Angela, what is the slope?

And as I'm going over these same three questions that people tend to struggle with, I'm just randomly asking them that same question. It just hits home. Repetition helps for some students. And then just that idea that, oh, they're eventually going to call my name-- let me make sure I know what the slope is. That also kind of helps. I think tying me knowing their name and tying it to the mathematical concept-- that can sometimes help, as well. And those are my verbal surveys, a way of surveying the class.

I just want them to talk more about the forming teams part. This is something that I find myself getting hung up on and worrying about certain students who I know either struggle socially, or are just more introverted, or, perhaps, are part of the demographic that's known as represented in the classroom in ways that they don't always feel comfortable. And that includes nontraditional students, who-- sometimes other students have the different expectations of them.

I struggle with, first, how to make that work for everybody, where I'm not just leaning on my reliable students to balance the difficult group and also, to what extent I should be involved with some of that conflict resolution-- if there are problems, is that something I should even be involved with at all? Or is that something that I should expect them, as adults, to be able to [INAUDIBLE]?

JENNIFER ROBBINS: So I'll take that one. So something I'm always really careful to do is, if I identify that something is going to be a hot-button topic, then I'm probably not going to sort students according to that topic. So for example, in 2016, I have a number of students who-- they are either immigrants themselves, or their parents were immigrants. And so if I ask people, please line up if English is not your primary language or if you or your family are immigrants, then that would have been terrible in 2016, just because of all the things going on across our country.

But some of the things that you're talking about, you could probably think about them and identify different ways to sort the students. So students know if they're more extroverted or introverted, so ask the extroverted students to stand towards one wall and the introverted students to stand closer to another wall. And then sort them that way.

Or if you are worried about students and backgrounds that they're coming from, something that you could bring up is that at Washington State University, we have a lot of first-generation students. And so could we have the people who are non-first generation and the students who are first generation line up?

I'm a first generation student, so I think that would be easier for me, asking them to line up that way, because I could, then, identify that, hey, I'm a first-generation student, too. So I would have been lining up here. So think about it creatively, but make sure, if there's a hot-button topic, that you don't sort students according to that, so race, religion, socioeconomic status. I don't think I would ever sort students based on those factors.

CLIF STRATTON: I wonder if there is a tool for students to quickly self-assess the extent to which they're an introvert or an extrovert if that's one of the things that you want to [INAUDIBLE]. And then just have them do that really quickly, and say, OK, if you scored this, over here. And then see where you fall. And then mix the groups accordingly so that you don't have all introverts and all extroverts.

[INTERPOSING VOICES]

AUDIENCE: Yeah, I would recommend the Holland Code, just because it is very helpful, as a career practitioner or development practitioner. We've utilized it before. And the Holland Code-- we've actually utilized it in a party segment, where we allow students to quickly self-assess themselves. And then we broke them out into groups, and it literally takes, like, 5 to 10 minutes.

And then they're able to self-assess based upon their interests and also, personality, where they lie. And then we tell them to choose, based on the pictures, where is their fit. And so they will group themselves out. And that I you can sort them based off of their own self-interest and personality, so Holland Code, FYI.

So I have a different problem, because I sort the students by major. I'm teaching Professional Development, and School Design, plus Construction. I have three people from three majors, and they all have to work together. They will all have to work together on projects for their whole professional life.

So it's arbitrary by major. And I have told them, you got to live with it, because the boss say, you're working on this team. You're working on this team. So you guys have to figure it out. But what I'm taking from here is some good things I think I can use to help them do that better.

I had a problem last semester, though, with one team that was particularly dysfunctional because of one person. And then I started getting, well, they're doing this. And I can't monitor the conversation. I have a young friend who took a nursing course online where there was that kind of a problem with group work. And she said, all the communication was online. Is there a way to use Blackboards-- this is a logistics question-- to say, all right, all teams, you need to be communicating on a discussion group so that I can drop in and see who's dissing who and who's not participating?

CLIF STRATTON: Yeah, you can set that up in Blackboard. There's a number of ways. There's some logistics. You have to group of students. I think you just literally call the group--

AUDIENCE: Is that what discussion groups do, put--

CLIF STRATTON: Yeah, you could do a general one that's the whole class. But you can limit access. You can set up groups for a particular set of five students, and only they can access it and see it. Except you can see it, too.

AUDIENCE: Because I'll have 10 to 14 groups of 5 in this class.

CLIF STRATTON: Yeah, you can set that up. I've done that in an online class, where they have to have a debate about globalization. And it's a little tricky to set up ahead of time, but it's possible to do. And it seems to run fairly smoothly once it's set up, again, as long as you instructions and expectations of that-- their communication happened there so that you can--

AUDIENCE: This is really good advice, here, about how to set up those expectations. But to be able to monitor that that's actually going on, just so I don't just hear that so-and-so is never showing up to work on the group project-- and their names--

CLIF STRATTON: And I think you can check-- you should be able to set them up so you can check access.

AUDIENCE: Yeah, like, who's been accessing it, yeah.

And I've done that before, where I've required four meetings, but the whole group, during the course of the project or whatever. And then they just literally report their attendance, so I

know that you went all four of them. You went to all four of them, and you went to zero of them. And that's factored into that-- sorry. Slacker down there-- so that's factored into your expectations, and how that's going to fit into the rubric, what part is the attendance at these meetings, and stuff like that.

Back to your question about picking or selecting groups, I struggle with this. We have one course that we teach where they do a fairly large group survey presentation as a pretty big component of their grade. And I spend the whole time thinking, OK, who's going to work with who? Who's going to work with who? Panicking about it, because my goal is to set them up for success, not failure, where they're fighting.

What worked really well for me last time was to do a series of mini projects with them, where I pick different ways, and randomly, you all get a number. And you're working with these four people today, and then this time next week, you want to go back whoever has the same last initially or whatever.

And then just carefully monitoring those group dynamics so that when I do have to set them up with these groups, where it is much higher stakes-- they're getting a big grade for this assignment-- I can look at how they worked with different people throughout the previous three weeks or whatever and make my judgments based on not.

Like, oh, these guys seem to really hit it off and work well together. I think they'll get a boost by being in that group, because they seemed really motivated. And pick a little bit more carefully for the bigger, higher stakes project by letting them do random or self-selecting for a series of smaller ones to start with--

What I had in mind, actually, is our project, where students have to travel overnight together, and so that adds some other layers of complication, even numbers for housing of men and women and stuff like that. And that's been one where we just had some bad experiences this year. Basically, I had three groups that I knew might have more challenging personality dynamics. And this year, they all came back feeling like it was not great, which didn't surprise me.

But I have wondered, then, how I should sort of improve that so that it's not discouraging for the people on the teams. Like, I don't want to lose someone just because they had a bad [? team ?] experience. I think a lot of them learned from it, but I don't want them to be put-off from doing that kind of project in the future.

CLIF STRATTON: I guess, maybe, using some of the tools about checking in, just making sure that they're checking in with you and with each other and that you can see that they're checking in. If things are really bad right, like, this one person is just combative or doesn't ever show up, the others usually let you know. And they're usually pretty nice about it. But yeah, I think providing them as many opportunities to self-correct as a team before you get three-quarters into the semester-- and then they come to you, because they're really fed-up.

AUDIENCE: But I think that that depends on how high or low risk these are.

CLIF STRATTON: That's true.

AUDIENCE: So since I do a lot of high-risk, big projects that are due, often, at the very end of the semester, I put the onus back on the students. And I'm very clear about expectations, but also, they evaluate themselves and their group members. Because that's part of the skill that, when we're working in teams and collaborating, out in any job they have to do that. They have to provide feedback to themselves and their group.

So that ups the ante for them, because I'm not doing it. They're doing it themselves. And it's anonymous, so they don't see each other. But it gives me the way to say, oh, that person did not do what was the expectation. And all three of the other group members pointed that out. So I can consistently-- and they're honest about it. They'll say, yeah, this person didn't show up for any of the meetings.

But what it does is it takes the onus off of me, and it teaches them, with clearer expectations, about, how do I work with others? But how do I evaluate that work, as well? So not that we're always doing evaluation, but that they can do that, as well, that they need to know, these are the expectations. These are my expectations. This person met those or did not.

I get, probably, about 90% 95%-- it works out great. They know the expectations. They do those things, and then you get an outlier every once in a while who, for whatever reason-- maybe it's health reasons or other things. And students are really upfront. They're very candid about that, because I think they're used to doing this, in some ways, on social media platforms and other ways of doing these things. So as long as it's professional and they know that expectations have been clear, let them do it and learn by it.

JENNIFER ROBBINS: Something that has been in the College of Pharmacy that directly relates with what you talked about-- something that we found is that students seem to lack the understanding of different strategies that they can use to actually resolve conflict between individuals. And more and more frequently, they're going to either texting or social media to vent what's going on. Or they just avoid the conflict altogether.

So in the college, something that we just developed, that we're piloting this year, is we're using a situational judgment test, where it has different scenarios. And then students have to rank the different ways in which they would potentially respond in this different scenario.

And they have to rank each response from a scale of one to four, one being, this is absolutely what you should do and four being, this is terrible, and you should never do it. So we're piloting this just to see if we can one set professionalism expectations more clearly and give students an idea of what different approaches could look like that they could use in the future.

CLIF STRATTON: Is that pilot pharmacy-specific content-wise? Or is it something that, if you shared it with us, we could, with slight modification, apply to various contexts?

JENNIFER ROBBINS: Some of it is pharmacy-specific, but most of it isn't. Because one of them-- we specifically have a question about, you're in group work, and Barney is slacking. How are you going to deal with this? How are you going to address it?

CLIF STRATTON: Yeah, that was what I was getting at, Jennifer's, is that you'd share it with us.

JENNIFER ROBBINS: So that the tools itself-- we worked with an outside group, and we're keeping them confidential. And we're trying to pilot them. So once we're done with the pilot year and we really have a deep understanding of how difficult grading actually is, then we potentially could share it.

AUDIENCE: Do we have anyone in Zoomland or who is video conferencing that would like to chime in on strategies that they've used in regards to the success of group work in your classroom? Do we have any other final comments before I beg you to take more subway? I'm begging.

CLIF STRATTON: [INAUDIBLE] my TA isn't sure.

AUDIENCE: [INAUDIBLE]

JENNIFER ROBBINS: Any more from our panelists?

CLIF STRATTON: Thank you all for coming. I actually learned quite a bit just from the discussion and in the process of working with Jennifer. So the collaboration part-- it paid off.

AUDIENCE: It worked.

CLIF STRATTON: It worked.

JENNIFER ROBBINS: So [? Valerie ?], thank you for the opportunity, and thank you, everybody, for attending and taking time out of your day. I appreciate it.

AUDIENCE: Yes, thank you.

Thank you.

CLIF STRATTON: Thanks, Jennifer.

AUDIENCE: Thank you. Thank you, Jennifer. Thank you, Tri-Cities as they walk out. Thank you, everyone that's here.