Hi, I'm Gail Gottfried. I am visiting associate professor of psychology this year at Claremont McKenna College. And I'm very pleased to be invited to show you some of the activities that my Introductory Psychology class has been doing this past year that meet the IPI learning outcomes related to research methods. The activity I'm presenting here today was done in fall semester 2022 in our Introductory Psychology class. The class was mostly first year students, first term students fall semester. Most were not expecting to major in psychology, and they were taking the class as a GE course. This particular semester, my course had a choose your adventure structure that had a variety of opportunities that students could choose. And some of them explored the way that psych scientists measure particular key constructs with the focus on measurement. So, this activity in particular focused on personality measurement and the slides that I'm going to present here were designed by two students who really did an exceptional job with this assignment, Caden Rogers and Kian Shah. The Introductory Psychology Initiative's learning outcomes for Intro Psychology have been nicely organized for us. And this activity focused on the first two primary categories of psychology content and scientific thinking. Broadly speaking, learning outcome 1.2, interpret research findings, and 2.1, 2.2, and 2.3 were the primary focus in this activity. In my class, the class is a lecture discussion format. The class size is pretty small. We usually start each unit by setting the context in a broad way. And I like to show the APA Dictionary definitions to introduce key concepts that we're going to discuss in the course. This encourages students to differentiate between definitions from the authorities in the field and popular or folk meanings that may not be scientific. That's a big focus in our course, and this also makes it easier for me when I switch textbooks so that I have one master definition on a slide. In this case, when we talk about personality, we talk about the various components, traits, interests, drives, values, self-concept abilities, and emotional patterns, and so on, so that students have examples of what each of those things are related to other concepts that we have covered in the class or will be covering in the class moving forward. We also talk a lot about methods in our course, and we usually talk about them in three different ways, observations, self-report, and other people reporting using surveys or interviews. In this particular case, personality in my course usually follows directly from discussion of temperament. And when we talk about temperament, we watch videos, and we look at various scales that are used to measure temperament in babies and in adults. With regard to personality, we usually talk about how we ourselves are observing casually when we describe our friends in terms of their characteristics. So, it's pretty easy for us to say things like they're introverted, but that's not very scientific or very systematic. And when we take the role of the researcher, we want to define these behaviors more specifically and to look for the behaviors that we think are actually going to show introversion in a systematic way. As to self-report, the students have already completed several personality assessments before they come to class, both scientific and fun ones that we find on the internet. And we usually discuss the difference and how well we think they reflect our actual personalities. And then finally, we talk about others' observations of us in a scientific way. And often we talk about how organizational psychologists might study job candidates as they interview, as a way to look at their observations about other peoples' personalities in terms of how well they think they'll fit. For personality unit in general, we spend a lot of time in my class talking about the big five model. The students are expected to be able to define each of the five key terms, openness, conscientiousness, extroversion, agreeableness, and neuroticism. And actually to be able to provide behavioral examples of someone who is high and someone who is low on each of the traits. And that ensures that students have a good understanding of what the terms mean as opposed to just memorizing the labels. So,, for a class activity, a take home activity that's a broadly scaled learning activity in this case is to conduct a study where the students collect data and present findings on a specific research question which I give to the class. In this case, the research question was, do other people accurately identify the personality traits of friends and close others? And we operationalize as a class accurate as a match between self-report data from the target people and reports by other

people. And that highlights the two key ways that we measure these data. So, the assignment prompt as it was written, this is exactly what it was. I just copied and pasted it. Conduct a study. How well do your friends know your personality? Work in groups of two to four. First identify at least five target individuals, you can be a target yourself, and have them all take the TIPI personality test. I selected five target individuals so that they would have to ask at least one person to be a target who was not already part of their group. Some students didn't want to do it themselves at all and all of their targets were from, some were friends or peers, and that was fine. Then I asked them to find three friends of each target who were also willing to participate and then to use the same scale to evaluate the target person's personality. So, if you take the test yourself, then you have three friends use the same test to evaluate your personality. And then finally, I asked them in a presentation to compare the results and summarize what they learned. Do your friends know your personality as well as or maybe better than you do? In my class, we chose to use the Ten Item Personality Inventory which we call the TIPI. It's a short measure. It's really easy for the students to understand, and it doesn't require the participants to spend a lot of time doing it, which is partly why we chose it. There are two items per trait, and it's easily available to download at the site that's linked here on my slides. We do talk about two key things when we introduce this. First is that this TIPI scale uses emotional stability instead of neuroticism. And we talk about why that terminology has changed over the years. One is that it's seen as more positive, whereas the other four traits are all seen as positive on the scale, but also the stigma around the term neuroticism today. So, the students understand that means broadly the same general concept but the opposite of neuroticism. We also like to talk about with regard to the scale that with the 10 items, five are positive and five are negative, which requires reverse coding. So, in my class, I just asked students to compare their scores to their friend scores, but most of them actually introduced a grouping variable themselves and came up with a very sophisticated hypothesis that I really appreciated. All of the examples here on my slides are from Claremont McKenna students in Psych 30 from fall 2022. Examples, longtime friends' scores for a target person will match self-report better than new friends' scores will. And again, they were students who were mostly in their first semester at college. So, they asked their brand new friends from college and then they called their best friend from high school to report. And one group looked at womens' scores match better than mens' scores will. And in fact, Caden and Kian looked at that variable in particular. One group looked at family members' scores where they said, my mom's going to have a better understanding of my personality than my friends will. And one group looked at seemingly outward traits like extroversion and compared those to seemingly inward traits like openness to experience, and looked at whether they matched better on things that were easier to see in peoples' behaviors than in things that were less easy to see in peoples' behaviors. So, they were really nicely done. The students clearly were interested in the topic, took it beyond what I had expected them to do, and they all reported that it was really fun. So, the next few slides that I have here were designed by Kian and Caden and they were part of their presentation for the class. They were particularly interested in gender and so they predicted that men friends would most closely match male targets and female friends would most closely match male targets in their assessment of a personality characteristics. And they drew this graphic, which really nicely illustrates the design and then explained it really well. They also did a really nice job scoring. And so first they recognized the reverse code scoring which we talk about in class and sometimes students still don't quite understand, and then they don't understand really why all their scores are a three. But Kian and Caden did a very nice job and reminded us in their presentation that that was necessary to do. Then they also computed average score across the two items for each big five trait for each of their target friends. And then they presented this very nice graph. I didn't change the fact that they spelled extroversion with an O. Our textbook and the scale itself spells extroversion traditionally with an A. I don't care about those sorts of things generally when I grade in this case so you may want to discuss that in your class or not. And they did a really nice job I thought here in computing difference, which

they called variance is the difference from each score that the friend gave to the one that they gave. And then they took an average what they call variance score, difference score, and then they looked at those graphically. So they presented this slide as their way of treating the data as completely done independently with I thought really a well done and sophisticated understanding of how to consider these issues. You can see they have group averages for all male friends responding about their targets and all female friends responding about the targets, and they computed a ratio showing agreement of males to females. This is more sophisticated than most of my students who presented more simple graphs that looked a little bit more like this, where they had the five scales on the bottom and peoples' scores, in some case, four peoples' scores for each of the items. My class had no data treatment expectation. This was just particularly well done. Ultimately in my class, all students are asked to think about discussion of any article as containing three key points. First is reflecting on the findings. That is always the first part of a discussion in an article. And when we read articles in class, that's one of the things that we talk about is always see where the authors have taken the findings one step further. And so here, that's what the students have done. We also asked them to reflect on the method and to think about future directions in the same way that we would if we were writing a paper. In this case, the students almost unequivocally talked about how much they would need a larger dataset to draw larger conclusions about a population in general. They also said that they might like a personality test that had more options, which I thought was great. And in fact, this semester, my students did use a personality test with more options for a similar assignment. And then finally, they actually were interested in qualitative data where they were interested in interviewing study participants. And so we talked about the differences between qualitative data and quantitative data and how you would code and discuss those in a research paper. Finally, I asked the students to include references and acknowledgements the way we would in any formal presentation. So always you recognize, so that students understand that we recognize people who have helped us with our research, whether they be people who have published on the topic prior or just the people who participated themselves. And students get a good understanding there of the ethics of doing research in general. In terms of grading these assignments, for me, I have preferred specifications grading for this kind of assignment where the students are generally given a sample in advance on a topic other than this one where they said, here's what a good presentation from a previous semester looks like that meets specifications. Specifications in my class tend to have the bar set pretty high. And so in this case, they needed to be able to introduce their topic by explaining the big five personality traits. Being able to explain how the TIPI was used. Completing the data collection as specified with at least five targets and at least three friends per target. Looking at coding whether it was accurate, whether they successfully reversed how they presented their data. Was it actually accurate based on the means that they had computed? Could they accurately summarize the results? And then did they have limitations or future plans? As long as they met all of those criteria, they passed the assignment. In terms of letter grading, you could look for higher grades or assign higher grades to students who showed more creative or advanced hypotheses. Used advanced data treatment, had some discussion that showed more or less critical thinking. That attractive design or presentation. For letter grading, when I use letter grading for assignments like this, I'm very careful with the rubric so that students have a good understanding of what constitutes an A. And I'm super careful to make sure that I'm not grading things that I'm not teaching. So, students who have great graphic design skills don't get higher grades than students who don't simply because they have great graphic design skills. I think that's all I have. If you have any questions or comments, you can reach me via, best way to find me is via my LinkedIn account, which is linked here. And I hope that you try this activity in your class and let me know how it goes.