**Tamara Plots for Representing Data**

Tamara: Okay everybody, we are done with our "do nows" right now so we're moving onto the mini lesson. That means your voice levels need to be at a zero like they are. So thank you Group 4. Thank you to Group 2 and thank you to Group 1. Now thank you Group 3.

Like I said, we're moving onto the mini lesson so voice level zero so you can hear what I'm saying and what your classmates are saying. If you need help raise your hand so I can call on you and we can answer the question.

What we're gonna do first is go over the "do now" and then we're gonna go into the mini lesson with our new topic for today. So with your "do now" I'm interested in knowing how many of you chose to do a line plot, a line plot to show the data? So **Filando** did, Maria, Tatiana. Three of you, four, five with Corinna., Michelle, six **[inaudible]**, six of you.

Why did you choose to do a line plot? Maria why did you choose to do a line plot?

Student: The reason why I chose doing that is because it would be easier.

Tamara: It was easier? So Maria says it was easy to her. Was there a specific reason why that was easy for you Maria?

Student: Because you can write the Xs on top. Like how many numbers it is.

Tamara: Okay, so you were representing how many of each piece of data was there with the Xs?

Student: Um hum.

Tamara: So that was easy for Maria. Are there any different reasons why some of you chose to do a line plot instead of something else? So the six of you who did a line plot, Jamie why did you choose to do a line plot?

Student: I chose what Maria did.

Tamara: Yeah, that's a line plot.

Student: It just made it more easier for me.

Tamara: It was easier for you. And why do you think it was easier? What made line plots easy? **Jellaria**.

Student: Because you can always get the answer right.

Tamara: You always get the answer right. What about it makes the answers right?

Student: I don't know.

Tamara: So I'm just interested to know why you chose that because we've been working on different sets of data. As you see we have it on the posters and on the word wall. We have different kinds of graphs and displays for data but some of you chose to do the line plot and I'm just interested in knowing why. So you don't need a real technical reason, I just really want to know why did you choose to do that? Summer.

Student: I think I chose to do a line plot because you been doing it for a good minute now.

Tamara: A good minute.

Student: Yeah.

Tamara: So in other words we've been doing it for a long time. We've been doing line plots for a while so we're used to them. Who chose to do something different than a line plot? David what did you choose to do?

Student: A stem and leaf.

Tamara: A stem and leaf plot. And do both stem and leaf plots and line plots show the same data.

Students: Yes.

Tamara: Exactly. But why David, did you choose to do a stem and leaf plot?

Student: It's more easier to do.

Tamara: You thought that was easier than line plots. What made it easier to do stem and leaf plots than line plots.

Student: Because in the ones place all you got to do it just count the number to see how many it was.

Tamara: Okay, so all you had to do was count the numbers. So what made that easier than just counting the numbers with the line plot.

Student: Because you had to keep on going on and you might had of messed up **[inaudible]**.

Tamara: Okay, so he thinks it's more difficult to add the numbers to a line plot. Anything different than a stem and leaf plot and a line plot, anything else people chose to use? What did you choose to use Chris?

Student: A stem and leaf plot.

Tamara: So you chose the same thing as David. Did you have a different reason why you did stem and leaf plot?

Student: Because it's more easier than the line plot and that bar graph.

Tamara: Than a bar graph? And I actually like your comment about bar graph because as you see, here with bar graphs, you usually have different categories right? You might have like favorite book. You might have a fantasy book, a biology book. Here we are not dealing with different categories, we're doing the same thing. So the directions were to choose an appropriate method. I actually think a bar graph would not have been too appropriate because we're dealing with one set of data not different categories of data.

Anything else people used? **Anyana**, your hand was raised. Yes.

Student: I used the same kind.

Tamara: You used the stem and leaf plot too? Why did you choose to do that? And then we're gonna move on to today's objective.

Student: So I learn it more.

Tamara: So you chose to do stem and leaf plot to get more practice? Well that is a very smart idea. So did you have more trouble at stem and leaf plots than line plots?

Student: Um hum.

Tamara: Are they more difficult? So do we all hear **Yanni's** reason? Yanni chose a proactive – he picked it because he was being proactive. He realized he had more trouble working with stem and leaf plots because they're newer to us, we just started those this week, but he tried to do that to get more practice. So Yanni, that's a very proactive thing, that's good.

And **Drudell**, last comment and we'll move on.

Student: Probably because more easier.

Tamara: It's easier. What is easier?

Student: To do the stem and leaf plot.

Tamara: What made it easy?

Student: I forgot.

Tamara: You forgot one. Let's think of a reason. Why wouldn't you want to do a line plot? Because if you think it's easy, why wouldn't you want to do a line plot?

Student: I forgot how to do it.

Tamara: Because you forgot how to do line plots?

Student: Yeah.

Tamara: So do we see a benefit? Overall, what's the benefit of knowing multiple ways to show data? Who can raise their hand and summarize for us? What's the benefit of knowing more than one way to show data? Tatiana?

Student: Because – I forgot, sorry.

Tamara: You forgot?

Student: I guess.

Tamara: So you guys can just think about it for a second. It's not something that we always talk about but something we need to be thinking about. What makes it good to have multiple ways of showing your data? Jamie?

Student: The reason why I used the line graph is because the stem and leaf –

Tamara: Line plot, line plot. You chose the line plot with the Xs?

Student: Because the stem and leaf plot is harder than a line plot to **[inaudible]**.

Tamara: So to me what it sounds like is what you are saying, it's good because you might not know how to do the other one as well. If you have different ways of solving a problem it'll be easier for you to tackle those problems. Like if you see this on an opportunity and it said, "Show me the data." if you know multiple ways you have different choices. So that's why you're learning all these different methods so that when you get to analyzing data on your own in Science when you're older, as an adult, you have multiple ways of showing people data.

When you all college, in college if you do reports they want you to show those reports in different ways. It's gonna be easier for you if you know stem and leaf plots and line plots for you to show that data and get your college course credit because you know multiple ways now. Jellaria, yes?

Student: What's different between line plots and stem and leaf plots?

Tamara: Other than how they actually look?

Student: Yeah.

Tamara: Other than how they look, what is the difference? Who can tell her what the difference is? Maria, what is the difference other than how they look?

Student: The difference between a stem and leaf plot and the difference between that is because the stem and leaf plot is like –

Tamara: Anyone have any ideas? **Quintessa**?

Student: The difference between the stem and leaf plot is that a stem and leaf **[inaudible]** is like you just label your numbers on one side and you have to put the numbers that you have, you have to put them in order and mark them down just by the second number and the line plot is just like, you put all the numbers in order and you put X on top and see how much it is.

Tamara: Okay, so that really relates back to what it looks like but Jellaria, to better answer your question – thank you Quintessa and Maria for trying to help out – to answer that question a bit more, with stem and leaf plots you can automatically see the values of everything you're measuring.

So if I made a line plot with the Xs, I have to look along the X axis and then look to see what the value is but with the stem and leaf plot all you have to do is look down and the values already there. You don't have to match anything up, the values are just there.

And also with stem and leaf plots, they're really good to use when you have a lot of data. Say if we have a hundred numbers here, fishermen, a hundred fishermen, it would be much easier for us to show the data in a stem and leaf plot than it would be to do a line plot because with line plots you have to look at all the Xs and put everything across. That's when stem and leaf plots are usually used, when you have a whole bunch of data you want to work with. Okay?

Today, we're using a bit less data.