**Monique Building Bridges**

Monique: All right. So how is this different from our other experiment? Alex?

Student: How long the bridge is?

Monique: Yeah, what are our variables in this one?

Student: The lengths.

Monique: The lengths of the bridges and the –

Student: Closeness of the books.

Monique: What’s the other variable?

Student: The weight?

Monique: The weight, the breaking weight.

Student: Oh.

Monique: Okay, so our variables are the lengths and the breaking weights. Lengths and breaking weights. Which one is our independent variable?

Student: Breaking weight?

Monique: Does the length depend on the breaking weight or does the breaking weight depend on the length?

Student: The breaking weight depends on the length.

Monique: So which one is our independent variable?

Student: The length.

Monique: The length. And which one is our dependent variable?

Student: Breaking weight.

Monique: Okay. So a couple of things that are different is one, your bridge lengths are going to be changing. What do you think is going to happen to the data on this one? The other data, what was our independent variable, the first experiment that we did?

Student: The thickness.

Monique: The thickness, the number of layers was our independent variable. So our number of layers, as we increase the number of layers, what happened to the breaking weight?

Student: The breaking weight got higher.

Monique: It got higher as well. At sort of a steady rate. Not exactly, but it was pretty close. What do you think is going to happen here?

Student: As the bridge length increases the breaking weight increases also?

Monique: Okay. So Alex [name] says as the bridge gets longer the breaking weight is going to increase. Do you guys agree with that?

Students: No.

Monique: Jessica?

Jessica: I disagree.

Monique: Okay, so Alex wants to rephrase her idea.

Alex: As the length of the bridges increase, the breaking weight decreases.

Monique: So as the length increases, the breaking weight decreases. Okay. Do you think it’s going to be at a steady rate?