Let's Do Chemistry Train-the-Trainer Pilot Workshop: Welcome Module

An Example of the Framework in Action video transcript

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Hi, my name is Patti Galvan. I work in the Office of Science Outreach at the American Chemical Society. My job is to help chemists share science with children and their families through hands-on activities. The ChemAttitudes project has really helped me in the work that I do and I think that it's going to help you in your outreach as well.

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You know, I've wondered about these really great activities. Sometimes I have these activities or I've seen these hands-on activities that are just really awesome. And I've really wanted to identify, "What is it about these activities that makes them so good? What are these characteristics, so that I can apply them to something new? Maybe something that I want to try for the first time?

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Well that's exactly what the *ChemAttitudes* project did and that's what this workshop is really all about. Informal science educators from around the country, and researchers worked together to develop the activities that resulted in the *Explore Science: Let's Do Chemistry* kit. But while they were doing that, they also identified the design strategies and the facilitation techniques that make really successful outreach experiences.

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Before the *ChemAttitudes* project, I used to give chemists an activity write-up before they would do the activities…before they would you know, present at a hands-on outreach event. And these activities would start with an introductory blurb, a materials list, procedure really spelled out, and an explanation slapped on to the end. And you know, I thought they were written pretty well. But, despite all that, chemists would come up to me after…you know…at the hands-on activity…right before the it started, and they would say to me, um…

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“How do I start this? What’s the point of this whole activity? What am I supposed to try to get kids to understand? What part of this do I do? What part are they supposed to do? How am I going to explain this so that they can understand?”

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Well, these questions kept coming up so often that I knew I had to do something about it. Well, the facilitation framework from ChemAttitudes, wouldn’t you know, answers these questions before they even become questions. The framework of Inviting participation, supporting exploration, and deepening understanding, really addresses this.

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And what’s really nice too, is that it also kind of reframes those questions, so “What can I do as a presenter to support the visitors’ experience as they take on the role of being a scientist?

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I’m going to show you an example of how I have applied the framework to the baby diaper polymer activity. It’s a great activity. It’s interesting. Definitely we’ve got the relevance in there. I can work on the self-efficacy piece. Sometimes, I have seen this just a big mess on the table and kids not really seeming to get much out of it. So, this is definitely one of those activities that could use a little work, that could use the help from the facilitation framework. So, here we go.

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When you were a baby, there was some chemistry deep inside your diaper that kept you feeling comfy, and dry, and happy. It’s this polymer right here, sodium polyacrylate. Do you want to see what happens to this powder when it gets wet? Let’s give it a try!

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So join us as we take a deep dive into the framework. Bring along an activity that you know, is pretty good, has potential, but isn't quite there yet. And I'm sure that with the informal science educators, researchers, the team of people who are participating in this workshop…just everybody all together…we're going to be able to take your outreach to the next level. Thanks!