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“Stimulating public interest, sense of relevance, and feelings of self-efficacy with respect to nanoscience and chemistry”

Evaluation early in the NISE Net project found that public audiences found hands-on activities interesting and enjoyable, but far fewer found nanotechnology relevant to their lives. Following this finding NISE Net the educators and exhibit developers worked to build stronger impacts related to sense of relevance. The Research and Evaluation team conducted a research study that looked at how various components of the *Nano* mini-exhibition stimulated comments and conversations by visitors that revealed perceptions of relevance. That work and the broader literature led to the development of a conceptual framework for stimulating public interest, sense of relevance, and feelings of self-efficacy with respect to topics like nanoscience and chemistry. The framework includes strategies for individual educational activities and for activity facilitator training, for each of the target outcomes related to interest, relevance, and self-efficacy. The framework formed the basis for a design-based research project, *ChemAttitudes* (1612482), that launched in November 2016. Over the past year educational activity developers at the Museum of Science and the Science Museum of Minnesota have worked with research and evaluation professionals at each site to test a wide range of hands-on educational activities that apply the strategies in the framework. Phase 1 results identify the strategies that have been most effective in achieving the targeted outcomes. Kits of educational materials that embody the successful strategies will be distributed to 250 sites in August 2018 for use during National Chemistry Week in October.