At the first site, we asked an open-ended qualitative question. Audience members were asked to "discover" as part of Act Two.

In Act Two, they adjourn to a nearby room to enjoy tea, cake, and dialogue facilitated by local scientists and scholars. Tea includes dance interruptions and additional science content, to stimulate reflection and public engagement about the nature of science, limits of measurement, and meaning of movements, both big and small.

Research Design

The challenge was to evaluate the impact of Act One, Act Two, and the overall performance in a way that would not take away from the audience members’ experiences. Together, the MSU evaluators and the Dance Exchange developed research designs, instruments (which we called “measures”), and data collection processes, so that rigor and creativity were maximized.

In general, audience members completed pre-performance, intermission, and post-performance measures. These hard-copy surveys included quantitative (Likert-scale) questions measuring their attitudes, interests, knowledge, and behavior concerning science; directed qualitative measures about their emotions (emotion clouds); open-ended qualitative questions about what struck them and about science themes they perceived during the performance and tea.

Researchers used a range of methods to collect data, such as random samples, surveys, interviews, observations, focus groups, and informal conversations. They used mixed methods evaluation of the Matter of Origins framework for evaluating impacts of informal science education projects. These methods were chosen to assess Act One, Act Two, the overall performance, and the Matter of Origins project.

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Audience members also provided background and demographic information, including race/ethnicity, gender, age, level of education, science background, dance background, and informal science education background.

Research designs varied from site to site and included demographic information, including race/ethnicity, gender, age, level of education, science background, dance background, and informal science education background.

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References


