

MythBusters: The Explosive Exhibition 2012

Research and Evaluation Executive Summary

Goal

This study looked at the effects of integrating an interactive, live show into a free-flow exhibit space and its effect on visitor learning.

Why

Live facilitation has been shown to increase learning amongst visitors and supports a greater connection to information and data. The results of this study support both formal and informal educators and researchers as they can help improve exhibit design and emphasize the importance of narrative and storytelling in science education.

What

The live show was conducted by two live facilitators on a stage near the exit of the exhibit space. The interactive demonstration lasted 10-12 min and used inquiry-based learning strategies and reinforcement engagement strategies with the audience. It was highly interactive with multiple audience members pulled onto the stage to participate and more contributing from the audience.

Who

The following were involved in the project:

- Children 7-18 years old (average=11) with tickets to the *MythBusters* exhibit
- Staff of the Research and Evaluation Department
- Two trained facilitators for the live show

How

- Children were given a pre-test (before entering the exhibit) and a post-test.
- A control group was chosen at random and took the post-test before watching the live show, while the treatment group took it after the show.
- Some children took short interviews instead of the post-test.
- Observation of the audience was done by staff of the Research and Evaluation Department.

When

August and September 2012.

Results

Data was collected from 333 children. The post-test was given to 80 children before the live show (control group) and 191 children after the live show (treatment). Thirty-two children were interviewed instead of taking the post-test.

Thirty-nine children chose to do neither the post-test nor the interview.

- The live show positively affected attitudes toward science.
- Guests learned more about specific exhibit content topics more when watching the live show. Specifically, the participants performed better on tasks associated with learning about how the brain processes auditory vs. visual cues.
- However, there was no evidence of impact on knowledge of the scientific process.

Project Lead: A. Price

Executive Summary Prepared By: R. Ibtasar 02/07/18

A paper was published on this study in the Journal of Museum Education. It can be downloaded for free at:
<https://www.tandfonline.com/doi/full/10.1179/1059865015Z.00000000095>

For more information contact msiresearch@msichicago.org