

Recommendations for MegaZapper Show

Identified by Abby and Marie, based on User Expert Interviews

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- Pre-Show considerations
 - Place headphones at the door as people walk in
 - Social Narrative for visitors (Intern project?)
 - Add symbols to exhibit guide to aid colorblind people in navigation
- Streamline orientation
 - Internal device warning constructed in an empathetic, non-joking way
 - Include seizure warning
 - Let visitors know that people who use wheelchairs/walking assistance will not be able to volunteer
- Show Content
 - Create a 'thesis statement' for presentation; what is your main point that you want visitors to know?
 - Perhaps have this statement printed on a fabric poster
 - Identify what point you are making with each demonstration and connect it back to the thesis statement
 - Perhaps use the "Scientific Inquiry" poster as a way to structure the show or refer back to
 - Perhaps have this printed on a fabric poster for visitors to reference
- Environment
 - Perhaps declutter the tables a little bit, have specific places for props, can arrange the table contents in a timeline order that reflects the evolution of electricity
- Presenter Facilitation
 - Include verbal descriptions of what is happening/what visitors are seeing
 - The audience want to be asked more questions, involve them with questions/guesses/observations
 - Explain that the visitor guide is for people who like to touch things (not only just for kids)
 - Use less jargon, try to explain terms before using the word
 - Let visitors know when to put on headphones
 - Use a countdown for loud noises

User Expert Feedback Findings

Collated feedback from 6 User Expert Interviews

General Feedback of Presentation

- Appreciated Tana's showmanship, knowledge, humor, and excitement around science
- Appreciated the heads up that it was his first time performing in a while
- Excited to see it in person now
- Liked that the candles helped set the scene from a candle-lit world to electricity
- Liked the connections between the show and the exhibits in the gallery
- Appreciated the introduction into the space-helped form a sense of the environment for Blind and low vision visitors.
- Would have liked to learn more about Tana and his background as the presenter
- Appreciated the flexible seating
- The visual elements (Van de Graaff) showing electricity helped me make connections
- I like the (musical tesla coils) at the end, it did a good job connecting science to pop culture
- I appreciated how Tana talked through each step with the volunteer to make sure they knew what was going to happen, asked for permission, and checked for understanding.
- I felt sense of wonder about electricity but I was confused at times
- I liked the big panels of visuals, the high contrast- white on black- made it easy to see

Content Feedback

- Felt disjointed at times. It would help to have a "thesis statement" of the show that the demonstrations come back to and illustrate. Have it available in some visual form like a poster or something would help ground me through the presentation
- It would be helpful if the content was more cohesive, intentional, and linear like a timeline: 'this lead to this, then to this...'
- Maybe there can be a laminated brochure with the main points the show will cover available to visitors so folks who are Deaf/hard of hearing, non-English speaking, kids, and other folks can follow along with the presentation. Maybe include QR codes with photos
- Enjoyed everyday life connections (outlets, comparisons, etc)
- Enjoyed the historical connections, maybe include more like "at the time this was happening, the car was invented" to give visitors historical perspective

Demonstration Feedback

- The demonstrations were interesting, though at time it was hard to see them (floating hair)
- The balloon static and big magnets were helpful tools to understand static electricity
- Would be helpful for the presenter to describe what's happening, what he's doing and why its happening (the theramin was confusing- is the human a conductor or insulator? Why is that happening)

- Have some photos of what it looks like to be in the MegaZapper cage- we're curious to see!
- Include high contrast cards to show equations from the poster
- Unsure how the theramin fit into the presentation
- Musical Coil was a fun way to end but I wanted to know how it worked!

Sound

- Give visitors another 'loud sound' warning before the MegaZapper is turned on; allow them the opportunity to choose to stay or not, or say 'time to put on the headphones if you want'
- Repeat the questions that volunteers or crowd members say so everyone can hear it
- Use a countdown to prepare visitors for loud sounds
- You could provide foam ear plugs and offer them as people walk in- they are more discrete and disposable than headphones
- Concerned about the possibility of the balloon popping, it can be triggering for many different people
- Let people know you're going to yell "Fire" but its ok, tell them thats going to happen
- Consider using a clear mask for people who lipread? Sometimes it was hard to understand the audio with a mask.

Lighting

- Have a spotlight, flashlight, or white background to create more contrast for seeing demonstrations (Van de Graaff)
- Give warnings about strobe lights, people with epilepsy might be impacted

Audience Participation

- Tana explained very clearly to volunteers what will happen, emphasized safety
- Would a wheelchair user(manual or power)be able to volunteer for any of the demonstrations, including the megazapper? Let visitors know yes or no so they are not disappointed and also offer them a way to experience it in the galleries.
- You could put a balloon on each seat to have visitors explore static electricity along with you (or other static-producing materials) though balloons popping can trigger folks who are sensitive to sound)
- Maybe ask the audience some questions to have them guess what will happen when...
- Possible tactile showing the shape of a lightning bolt

Points of Confusion

- Confusion around the fluorescent tubes, did not understand why they were glowing
- Wanted to learn more about the spinning machine, didn't understanding what it was or why it was significant
- Didn't understand what was happening with the musical coil--how does it work? How did you play it?
- Unsure what the gyroscope was suppose to demonstrate
- Confused about why electricity wants to go to the ground or how/why it travels at all
- Wasn't sure if the medical device warnings were real or just a joke
- The equations were kind of overwhelming, not sure what I was looking at
- Confused why the point made the hair lay down? I like a little mystery but it would be helpful to explain what was happening

General Suggestions

- Put the show in context of the museum- why have tesla coil? Why is it special?
- Give an introduction of the points the show will cover
- Use verbal descriptions to describe what is happening, what you're doing and what effect it is having so folks who are blind/low vision can visualize what is happening.
- Use more specific language and less jargon. Lots of "this" and "that" but maybe explain what youre talking about.
- Explain a science phenomenon in plain words then mention the scientific word, this helps visitors feel included if they dont have a science background
- Include stories of women, people of color, or hidden stories/connections
- When giving a warning about medical devices, consider doing so in a more kind, inclusive way. Visitors might feel called out or embarrassed needing to leave. How can they still get the same experience without feeling excluded? Maybe let them know before the show so they will know beforehand and not become a butt of a joke.
- Let visitors know what devices used in the demonstrations they will be able to touch in the galleries. Maybe open up the room or have them on display for visitors to explore before or after the show.
- Mention the smell too, some people have really sensitive noses and it is another way for Blind/low vision people can connect with the content
- Let visitors know about headphones/medical concerns before the show, keep in neutral setting
- Avoid generalizations about what people may or may not know about the topic or life experiences- this might prevent audience members from wanting to participate in case they are "wrong"
- I wondered if there could be an 'easy' read guide available, large print
- In relation to saying the guide/interactives is for "small kids", they could actually benefit lots of people, like folks with developmental disabilities. Maybe say "for people who like hands-on activities" they can consult the guide rather than saying its for kids.
- Consider using CART, ASL interpretation, [assistive listening device](#) for people who need better access to audio.

- Consider making a [social narrative](#) that could be available online before people visit or available at the front desk.
- Although Tana didn't do this, I feel strongly that the presenter learn to say the volunteer's name correctly without embarrassing them or saying its a weird name (I have a unique name and have experienced that)
- Make volunteer instructions more clear. People with Developmental Disabilities may not understand
- Maybe there is a way to make the sound of the coils tactile so deaf people can experience it? Feel the speaker maybe?
- Provide a transcript of the show- this can benefit Deaf/hard of hearing people, children, people with Developmental disabilities, or english language learners too.
- Try not to assume the gender of volunteers, this is important to show in the science environment
- Consider adding in a short intermission, for shows longer than an hour can be really hard to sit through and pay attention
- What if a volunteer for the MegaZapper can physically sign the waiver?
- Visitors could download the Sensory Electra App to help translate the sound into a visual
- Check for understanding with the crowd through voting with hands or asking them to make a hypothesis, 'talk with your neighbor about this question'...
- Use more metaphors to bring us along, "electricity is like water...", explain insulators and conductors with metaphors