How-To: **Museum Evaluation**

Orange County's Audience Research Learning Collaborative knowledge product

Begin by asking:
"What do we want to know?"

Identify the information that needs to be answered, then consider what data collection method(s) may best capture that information.

Think outside the box.

Remember:
This is visitor research, not visitor punishment.

Consider your audience.
How would you like to be approached?

Look for resources that are available to you, such as volunteers, inexpensive voting boxes, cheap and easy-to-find resources.

Remember what you want to know and keep that as your focus.

Figure #1
Example of a **visual, creative, fun, interactive** voting method.

Test your tools and questions and adjust accordingly.

Based on your test, discuss standards with all who will be implementing the evaluation before formally collecting data. Ensure everyone is on the same page with terminology and protocol.

Write a report.

How much effort does someone need to put into reading your report to understand and act upon the findings?

Create a 1 page summary.

Just start and learn from your experiences!

Orange County Evaluation Tool Kit/Handbook[1]

What do I want to know? What are my evaluation questions?

Beginning the evaluative process may be the most difficult part of all. It begins with more questions: What do we know? What don't we know? What don't we know that we don't know? Why are we asking these questions? Who is asking? What do we want to know?

As with any research paper, master's thesis, or doctoral dissertation the process begins with a narrowing down to what we want to know. A focused and successful evaluation will consider program needs and goals, as well as the objectives of all those involved i.e.: funding partners, stakeholders and staff.

"One proven strategy that can maximize these opportunities, while helping the field address critical concerns, is to better understanding visitors' needs, expectations, and motivations. Integrating the visitor perspective into all stages of planning, development, and implementation is what we call 'evaluative thinking'."[2]

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[1] Developed by: CNfC Orange County Audience Research Learning Collaborative Members: Kate Ambrose, Michelle Caligiuri, Jennifer Keil, Xavier Robles, Laura Schmidl, Maxine Schmidl, Stefanie Tash, and Allison Town; with Elizabeth Mackey, CNfC Orange County Regional Coordinator.

[2] Stein, Jill, Marianna Adams, and Jessica Luke, "Thinking Evaluatively: A Practical Guide to Integrating the Visitor Voice," *AASLH Technical Leaflet*, #238, page 1.

How do we create a shared language at our institutions?

Don't get lost in translation! Agree upon terms and definitions within and amongst your work place, such as: understanding what evaluation means, research, goals, objectives, outputs, outcomes, and indicators. Share what you all know already about your institution and ensure you are all on the same page as to why you are conducting your research.

How do I gather data? Who is my audience? What are my resources?

The evaluation method that you choose depends on your resources and the audience that you wish to survey. Sometimes, it is good to use more than one evaluation method to provide a complete view of the program or exhibit that is being evaluated.

Evaluators should identify what information they need in order to answer their evaluation questions as well as considering what data collection method, or methods, might best capture that information. It is also important to think about how time-consuming or complex the process may be to gather, enter, and analyze the data for each method. As the time needed to conduct an evaluation increases, so do the expenses related to it. There may also be material expenses to consider, such as incentives for participants or software fees. While interviews, observations, and surveys are most often used in museum evaluations, many other methods might be more efficient, relevant for your study, or more fun for participants (i.e.: focus groups, artifact review, journals, recording conversations, web analytics, participation data, etc).

Experiment with and use methodologies that are outside your comfort zone

Audience engagement may be a bit intimidating when you do not know where to start or who your audience is. Additionally, there are no prescribed methodologies that must be used to collect data from your audience. However, experts do have some suggested rudimentary methodologies that can make this process easier and less daunting. Many cultural institutions have a wide range of audiences, making it challenging to determine who to target or what you want to know. Formal surveys and informal observations are two of the most common ways to do audience research in a museum. Online survey websites, like Survey Monkey, have proven to be easy to use and efficient in collecting and synthesizing data for many organizations. Conducting formal observations while noting behavioral patterns can also be a fairly easy to conduct and rich source of information about museum visitors. As an example, Nan Renner, Research Associate at the University of California San Diego's Center for Research on Educational Equity, Assessment, and Teaching Excellence (CREATE), conducted a re-evaluation of text labels at the San Diego Natural History Museum. The need for this evaluation was a direct result of conducting formal observations of visitors.[3] Observations can be quick and easy ways to collect data and can be integrated as part of your creative methodology.

Experimentation is key; the more you are willing to be creative and adapt to new methodologies, the better. An important part of evaluation is understanding from the beginning that you do not know what your results are going to be. Therefore, it is important to start by making your audience feel

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[3] Renner, Nan, "Audience Research Overview Webinar," 30 July 2015, https://attendee.gototraining.com/90pc0/recording/9131545591969086209.

comfortable through engaging and creative ways in which you collect your data. Adaptation means being impromptu with your methodology and finding different ways to collect data. For example, your institution may have previously collected data on visitors, but is now aware of a changing population demographic. As a result, you may need to adjust specific questions or ways of interacting with your audience in order to better empathize and relate to many of your visitors. You may wish to consider, "How can we make this question succinct and concise?" or, "How can we ask this question and get a response from the audience in one word?" Being creative with the types of questions you ask and the way you interact with your audience is an important part of thinking outside the box and finding new and innovative ways to evaluate your audience. The materials you use to gather your data is another outlet for creativity, as well as the way you choose to present your findings at the end of your evaluation. When considering which methodology to use, be considerate of who you will be surveying: think about how often they will be surveyed, how they will be impacted by the survey process, and when the survey will take place. Some creative methodologies might include: interactivity, playfulness, sourcing your materials, and having fun with it - the more fun you have, the more data you might collect because your audience may be more receptive when they do not feel like they are completing a chore in order to participate in the evaluation. Experimentation leads to creative data collection and often works well; in many cases innovative and experimental methods can be more successful than tried-and-true methods. As an example, at the end of a year long program, the Monterey Bay Aquarium collected storyboards from groups of students to reflect on their attitudes and reactions to the project at the beginning, middle, and end of the school year. By gathering complex, authentic, qualitative data, the researcher, Chris Parsons, was able to code and understand what the students thought really thought about the program.[4]

Every institution is different. You have to find the methodologies that work best for you and your institution. When you know what type of information you want to collect, there are no limits to how you can collect the corresponding data. Make sure you are open and driven to find different ways of understanding your audience and creating meaningful relationships. Evaluations can enhance your knowledge of your audience, which can lead to new ways of making decisions on how to work with, and cater to, your audience.

Test your tools and questions

It is important to test the tools and methodologies that have been chosen. Your target questions (*why are you visiting, what is the age group of our visitors, etc.*), method of evaluation (*interactive, voting, observations, survey, etc.*), and audience (*adults only, during a specific program or day, etc.*) will all influence each other, as will the tools and protocol that will be used for the evaluation. Before conducting the final evaluation, take a day to test the chosen protocol to see if any changes need to be made. Consider:
- The length of the survey, if people are not filling it out completely
- The location of voting booth, if not visible to visitors
- The way something is written; is it too complicated?
- The age group distribution, if not specific enough

[4] Parsons, Chris, "Audience Research Webinar: 'Ask the Expert: Learning from Our Data & Continuing Our Practice'," 29 October 2015, https://attendee.gototraining.com/90pc0/recording/1408922226735550722.

Once a test has been completed, the protocol and/or questions can be modified to achieve a more meaningful evaluation.

An organization's evaluations can be limited based on available resources such as finances, staff, and time. It is important to think outside the box and consider where things can be done that stay within a budget while allowing for an accurate and effective evaluation. *(Examples may include: volunteers, inexpensive voting boxes, or construction paper versus coins as voting tokens.)* Look for resources that are already available to you in order to create an evaluation that will work with what you have. Some examples might include:

- Volunteers can ask questions during programs to get verbal feedback from visitors, which might change your initial evaluation protocol.
- Use volunteers as test subjects before conducting the survey to see if it works the way you intended.
- Find out what resources are available to you based on what your organization already has.

Create a protocol for your tools and train staff to gather data

The Orange County Audience Research Learning Collaborative first discussed which tools we wanted to use to gather information. The Evaluation Toolkit for Museum Practitioners was a critical text for designing our study. We made sure our practices were practical and ethical. Our group created two protocols to collect and further evaluate our gathered data. Due to our limited time and existing familiarity with written tools, we decided to create a voting station as well as a focused observation data collection tool. To sample our process, please refer to Final Version Evaluation Tool and Protocols.

The goal of the survey was to find out why visitors visited the Discovery Cube. We decided to utilize an interactive station that would allow visitors of all ages to participate. We selected every third person who passed by the table to participate in the survey. We divided participants based on age: 5-12 years old, 12-18, and adult. If interested in participating, we sampled the entire group that was with every third person. These standards were partially based off Sampling; Program Development and Evaluation. It was important for us to consider our sample size, a decision based on Determine Appropriate Sample Size, Evaluation Toolkit. We assigned a specific colored 2"x2" paper to each of these age groups. We hoped to sample 50 individual's answers and in hindsight we suggest that, if this survey was to be used again, a tally of total participants should be tracked in order to determine the actual number of participants. Every individual could vote multiple times for each qualifying category by placing their piece(s) of paper into a pumpkin representing the following options:

- Are you visiting to see the Spooky Science exhibit – Spooky Science graphic
- Are you visiting to see the Hot Wheels exhibit – Hot Wheels graphic
- Are you visiting the Discovery Cube as a destination spot/entertainment – Discovery Cube logo
- Are you visiting on a school assignment or trip – school bus graphic
- Are you visiting because you are interested in learning and education – book graphic
- Are you visiting on a family outing – family graphic

We created a sample script to be used when approaching each visitor. Most people were open to participating and it took little time to explain the activity, so each age group could easily participate. We asked, "What inspired you to visit Discovery Cube today?" and then we guided them to the voting table, but we did not influence their vote with leading questions. Sticking to your pre-set questions creates standards and improves the quality of your data.
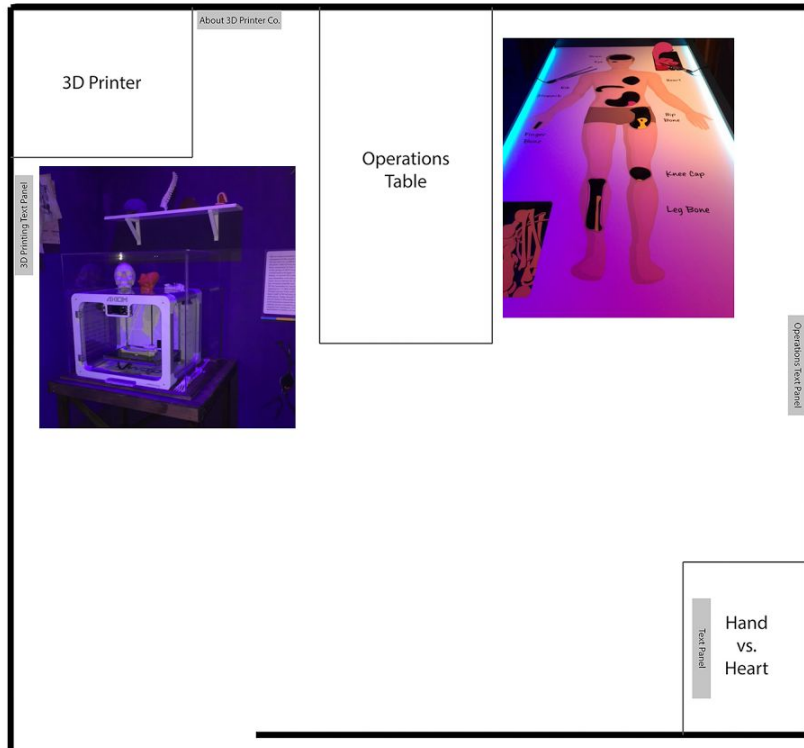
Trace Path through Gallery
Trace visitor(s) path through gallery noting stops with an x. Note the length of time spent at each stop.

Our Focused Observation Protocol was focused on a particular exhibit called Spooky Science. The particular room we observed consisted of three exhibits: a non-interactive 3D printer, an interactive oversized Operations Table, and an interactive exhibit on the Hand vs. Heart (see pictures of each exhibit and layout of the room, above). Each exhibit had limited textual explanation to introduce the topic and encourage interaction. We would observe every third person/group (who was older than five) that passed our imaginary boundary line. Our team wanted to observe 30 people/groups. Prior to gathering data, our group met at this exhibit and noted how we would track demographics, observations, movement within the space, and general notes of behavior. Using a simple paper map of the room, we decided that a solid line would represent an adult's movement and a dotted line a child's movement. At the time, we did not specify the length of time that qualified as "extended looking." It was roughly determined to last thirty seconds for this study. Based on our goals, we wanted to go unnoticed by the visitors as we conducted this observation. Due to our limited vantage point in a small gallery, this created a challenge when observing if participants were reading a text panel or simply looking around the space. We would recommend that future observations consider all these obstacles prior to designing and implementing a study.

Based on our readings and webinars, we also learned about traditional voting tools and how to utilize digital surveys, such as Survey Monkey and Google Forms. We created a digital focused observation tool, but if offered limited ways to track movements of visitors, so we resorted to a paper form instead.

Our case study and Institution Application

In our case study, we considered the time of day and who we might encounter, looking specifically for a day with both general visitors and school groups. This would affect our demographics. When your institution wants to conduct a study, consider how different times and/or days influence the methods you use to gather data and results. Our study was conducted mid-week when field trips were scheduled. When conducting an evaluation, your data can represent general visitor experience or isolate a special event, depending on when you conduct your study. In order to gather consistent data, we recommend discussing standards with all who will be implementing the survey before you begin. The organization and all people conducting the evaluation should have a clear goal, but be willing to change and adapt the study based on encountered circumstances, especially following testing.

- Consider your audience. How would you like to be approached? Remember what you would like to learn from your visitors.
- Consider how you will code your information (length of time and certain key behaviors).
- It is recommended that you test your tools beforehand.
- Consider who you will sample and the time(s) of day the evaluation will occur.
- You can break down different roles to improve efficiency and accuracy of the study. For example, one person can record how many people you are sampling while another person can track movement and time spent on each activity. It is recommended that you limit the number of observers at a given time so you do not repeat observations of the same visitors.

As museum professionals, we rarely have the opportunity to learn about and practice evaluating. As new practitioners, it may be intimidating to start a study because of all the various scenarios. Our group learned together with strong theoretical training and excellent hands-on experience. We encourage you just to start and learn from your experiences.

Learn from your experiences and be open to change

During the survey, realize that some standards may change. Expect a certain degree of adjustment. Make notes throughout the day for the wrap-up discussion/meeting once the survey is complete.

Follow-up is a vital part of the process. During wrap-up discussion/meeting, determine what worked and did not work. Then adjust the survey and protocols if they might be used for future implementation.

Example: *Within our group experience at the Discovery Cube, we realized that some of our previously agreed upon ideas were not as effective once we physically implemented them on the day we conducted the survey. From the location of the survey table to the verbal script, we had to adjust accordingly.*

Share your data effectively

"Design plays a crucial role in communication."[5]

Both the design of your research tool and presentation of data should be sensitive to your respective audiences. Ask yourself, "What is fair to ask your audience to do? How much work or effort does someone need to put into reading your report or understanding your findings?"

"This is visitor research, not visitor punishment."[6]

No five page questionnaires! Be playful and curious. In addition to collecting high-quality data, make the visitors feel comfortable, ask only what is necessary, and create an enjoyable interaction. Also be sure to create a one page, easy-to-read summary of your results (see page 1) in addition to a longer report.

For our interactive voting booth at Discovery Cube (science center) we used plastic pumpkin pails (in October) as voting boxes to appeal to our audience visually. We also used a combination of graphics and brief text to describe our voting categories. Enhancing a caption with a graphic makes the display more eye-catching and attractive, is useful for children who cannot read or are learning to read, and breaks down literacy barriers in all age groups. This visually interactive voting method allowed people of all ages to feel comfortable, and in some cases, be excited to participate.

Design: Appearance of tools and reporting data

"Design matters; it supports your audience's effort to understand information and understanding leads to action."[7]

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[5] Trainer, Laureen, "Don't Let Your Message Die on Delivery!,"*Journal of Museum Education*, Volume 40, Number 1, March 2015, page 37.

[6] Owens Renner, Nancy and Marianna Adams, "Learning by Doing Exhibit Evaluation at the San Diego Natural History Museum," *Visitor Studies Today!*, Volume VI, Issue I, Spring 2003, page 21.

[7] Trainer, Laureen, "Don't Let Your Message Die on Delivery!," *Journal of Museum Education*, Volume 40, Number 1, March 2015, page 38.

Show off your results.

Findings first! Consider your audience and tell them right away what they need to know to take meaningful action. Avoid TLDR "Too Long, Didn't Read." Consider a 1-3-25 model: a one page handout (see page 1), a three page summary, and a twenty-five page report. Communicate your core message on the first page. Even if your reader goes no further, they will already know your point. Simplify and present data to grab attention.
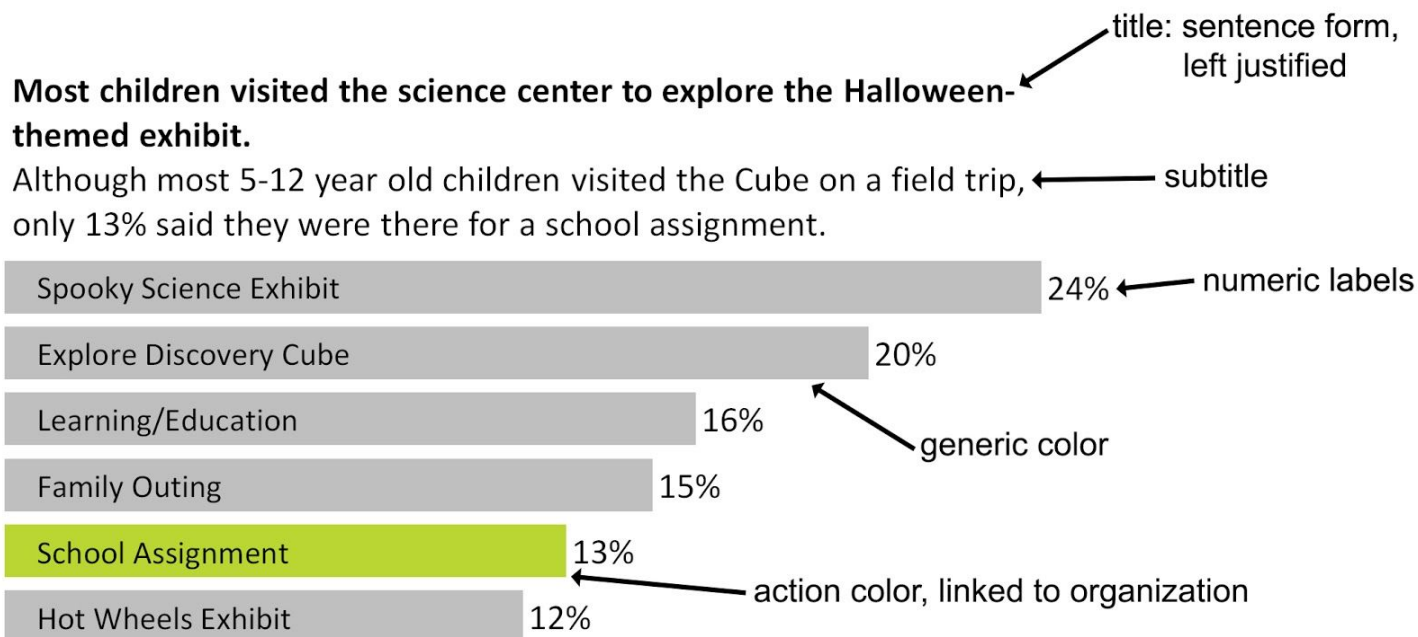
Inspired by Stephanie Evergreen and Ann K. Emery's "Data Visualization Checklist," we created the following two graphs as examples of things to avoid when creating visual graphs (first graph) as well as best practices (second graph). The sample data was one piece of our findings from the interactive voting survey at the Discovery Cube.

Data Visualization: Graphs

Graphs catch a viewer's attention. Be precise and draw your reader's attention to significant findings. Only show data that needs attention to avoid diluting the power of your graph. Use an intentional arrangement of data and color (consider your organization's colors), avoiding lines that add clutter. *Highlight your significant findings or conclusions.*
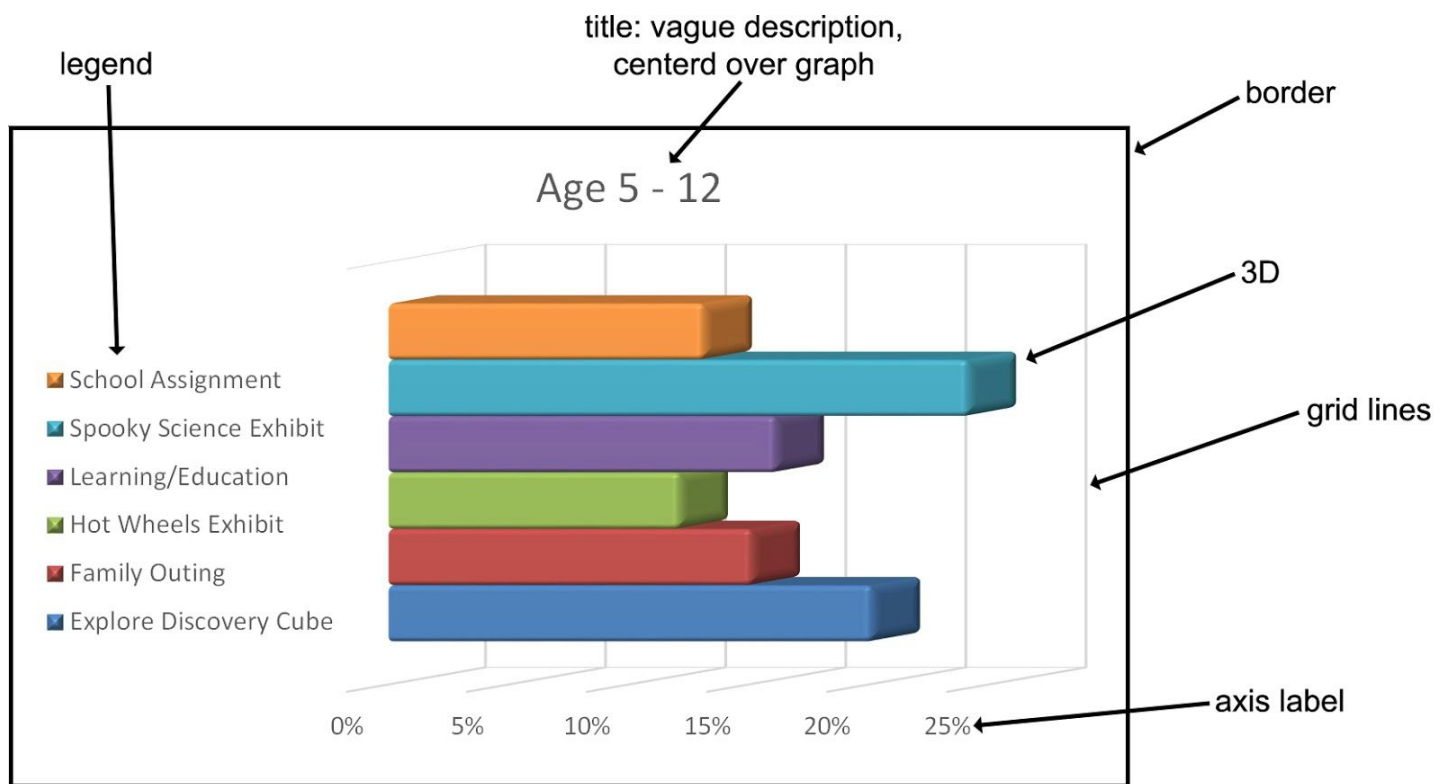
The above graph is an example of a hard-to-read, Excel-style bar graph. The way much of this information is displayed makes it challenging to read and to quickly understand the significance of the data.

Most children visited the science center to explore the Halloween-themed exhibit.

Although most 5-12 year old children visited the Cube on a field trip, only 13% said they were there for a school assignment.

subtitle

Spooky Science Exhibit	24%
Explore Discovery Cube	20%
Learning/Education	16%
Family Outing	15%
School Assignment	13%
Hot Wheels Exhibit	12%

numeric labels

generic color

action color, linked to organization

This graph is much easier to read and highlights the results you want to emphasize.