

Formative Interview Methods

We conducted semi-structured interviews with five journalists about their responsive visualization design practices. All participants had previously published at least one article that exhibited responsive visualization techniques. Participants were asked to describe their general process when developing a visualization for a news article and were also asked to describe some of the responsive techniques used in one of their published articles. Finally, participants were asked to describe the major challenges they face when designing responsive visualizations. The interviews lasted about one hour.

This document includes the template of questions used during the interviews. These questions acted as a jumping off point for the interviews, though the conversation was encouraged to evolve and flow naturally. Prior to each interview, we customized the template to ask specific questions about past articles that the journalist had worked on. Some examples of these customized questions are included at the end of this document.

Formative Interview Question Template

Thank you for agreeing to take the time to talk to me. As I mentioned in my email, we are interested in your development process for responsive visualizations that adapt to different devices.

1. To start out, how often and in what ways do you collaborate with others while working on an article and developing the visualizations?
2. Can you walk me through your general workflow when developing a visualization?
3. What tools or techniques are you using to produce the final visualization? What tools are you using along the way for prototyping, data exploration, or producing the original design?
4. Can you describe how you iterate on visualization designs? Do you often develop alternative designs and how do you decide between them?
5. For our own analysis, we were looking at your article <<article title>> from <<organization>>. Can you walk me through the visualizations in this article and describe your design rationale with respect to the responsive techniques used? (<<link to article>>)
 - a. <<article specific questions, see page 3>>

6. We were also looking at your article <<article title>>. Can you walk me through some of the visualizations in this article and describe your rationale? (<<link to article>>)
 - a. <<article specific questions, see page 3>>
7. When working on visualizations in general, how often and why do you decide not to make the visualization responsive?
8. Which device do you prioritize or design for in your usual workflow (if any)?
9. What is your process for producing a responsive visualization? How does the design of responsive visualizations fit into your general workflow and at what point in the process do you consider the responsive aspects of the design?
10. Are you designing multiple versions or producing a single adaptive version?
11. How often do you consider changing what data is included in the mobile alternative (for example, by filtering or aggregating the underlying data)?
12. Can you think of any other examples of projects you've worked on in which you've used interesting responsive techniques that you might want to share with us?

Thinking more broadly:

13. How important do you think it is for visualizations to be responsive to different devices? In particular, how important do you think it is to produce radically different versions for different devices?
14. What are the major challenges that you've faced when trying to design responsive visualizations?
15. How might your workflow be improved to support the development of more responsive visualization design?

At this point, those are all of the questions I had prepared. Do you have any questions for me or final thoughts about responsive visualization design?

Article Specific Questions (Examples)

For each interview, we also came up with some questions specific to the articles that we wanted to discuss; these questions aimed to thoroughly explore some of the responsive design decisions in the article. Here are some examples of the questions we asked:

- How did you decide which annotations to include on the chart at various points?
- Why did you decide to remove these annotations from the mobile version?
- How did you decide on which details to remove and which to keep?
- How did you come up with the original design and how did you decide what simplifications to make?
- In particular, can you discuss the different interaction techniques exhibited by the desktop and mobile versions?
- For the visualization <<visualization title>>, you use somewhat different binning schemes between the desktop and mobile versions. How did you decide on the bin ranges and what impact do you think that has on this visualization?