Sprint 9 Prototype: Converging on a final solution

Testing goal

Now that we have validated and gained a more comprehensive understanding of how people learn, we now wanted to create a standardized set of content models that focused on being more engaging and easy to understand for users of all knowledge levels.

Thus, the goal for this round of prototyping and testing is to validate our assumptions made from our content model designs and evaluate how effective they are at increasing people's investment and knowledge.

Hypothesis

Our hypothesis is that the sample pages we made using our new content models will make people retain more information and develop a deeper connection to the issue because the information is now structured and presented in a more approachable and engaging way.

Prototype design

Link to our prototype

In this Sprint, we started to put all the elements of our proposed solution together. This included:

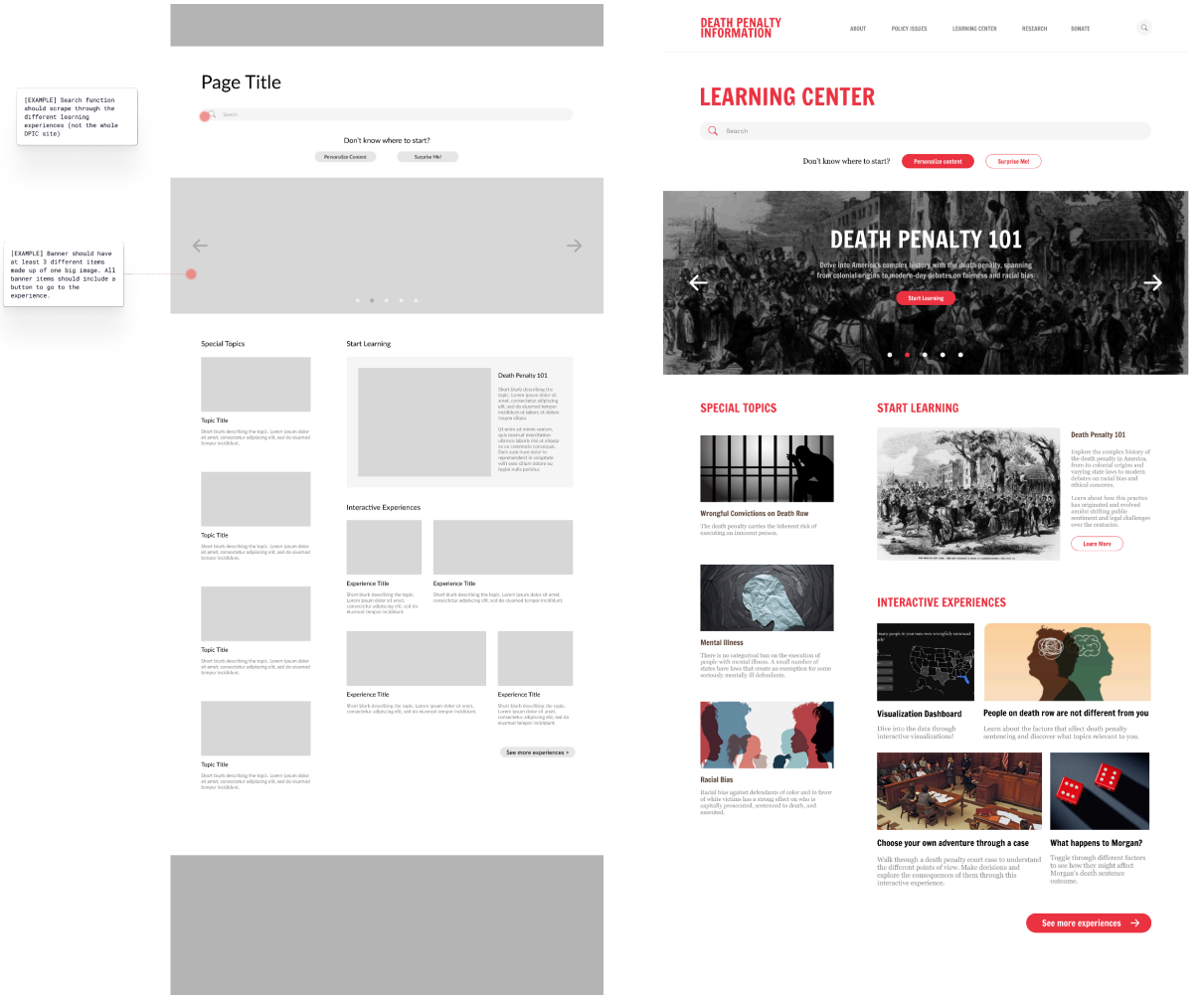
- Information architecture
- Learning experiences
- Webpage content

To do so, we designed content models that will act as templates that DPIC can refer to when creating web pages. We decided to design these content models for 5 distinct types of pages that we've seen DPIC use, and that our research showed is desirable. These 5 page types were:

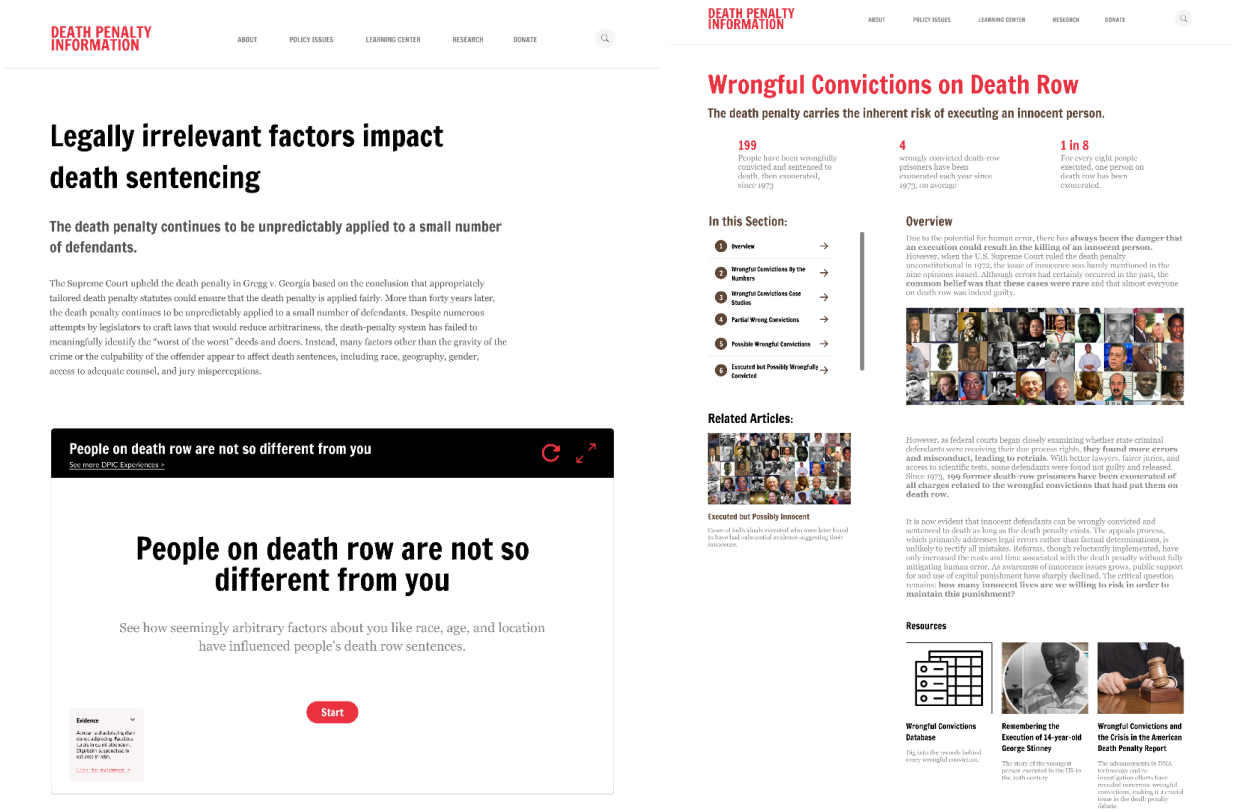
- General article
- Overview or Topic Section page
- Learning/education focused pages
- Data Visualizations
- Interactive experiences
- Case studies or personal stories

In addition to the content models or templates, we also created fully fleshed out mockups for each of these page types. The mockups included higher visual and content fidelity as opposed to lo-fi wireframes. We did so that participants can actually engage with the content, and we can test

whether the new designs are effective in getting users more interested in the content being presented [pre & post tests mentioned later].



An example of a content model for the 'Learning Center' page on the left, and the hi-fidelity version of it on the right.



An example of an interactive learning experience embedded in an article page on the left, and a content model for a 'Section overview' page on the right.

Testing Procedure

- Participants answered 3 demographic questions before engaging with the prototype.
- Participants were given a Pre Test to gauge their initial Death Penalty Knowledge
- Participants were set up with a scenario about finding death penalty information and asked to behave as they would naturally, when clicking through with the prototype and told to think out loud.
- Participants were asked if anything confused them, or stood out to them on each page. They were also asked if the page met their expectation
- After the participant was done with a page, they were asked what they would do next
- After interacting with the prototype participants were given a Post Test to gauge their knowledge.
- Participants were then asked 3 closing questions.

Goals

Our main goal was to evaluate how effective our content models were in increasing investment and knowledge. Specifically:

- Was the content engaging?
- Was the information clear?
- Did they gain knowledge after interacting with the prototype?

Participants/recruitment

We recruited 12 participants that fell under our Casual Information Seeker (low knowledge and investment in the death penalty) and Concerned Curious Learner (low knowledge, high investment) archetypes.

Questions

Introductory questions (~ 2 min)

1. How much do you care about the death penalty? Why?
2. When have you encountered death penalty info?
3. Have you ever looked up info about the death penalty? If so, when do you?

Pre-Study Test (5 min)

1. Are you for or against the death penalty? Why?
2. What do you think are the most pressing issues with the death penalty today?
3. What do you think are the key historical factors that have affected the death penalty in America? How did they affect it?
4. How does the race of the perpetrator and victim influence death sentences?
5. Can people be proven innocent after they have already been executed? (Yes or No)
6. What are some of the key factors that might influence a death sentence? How do they affect it?
7. Do you agree with this statement: I trust the criminal justice system to fairly decide on death penalty convictions. Explain why or why not.

Learning Home page (5 min)

1. Upon first glance what do you think you are looking at? What do you think this page is trying to tell you?
2. Is there anything that stands out to you?
3. Is there anything that you found confusing?
4. Is there anything you didn't like?
    a. Why?
    b. What would you prefer instead?

5. What would you do after landing on this page?
    a. Why?

Section Pages (35 min)

As a reminder as you go through this page please walk me through what you're thinking.

1. Upon first glance what do you think you are looking at? What do you think this page is trying to tell you?
2. Did this meet your expectations, when landing on this page?
    a. **If no**, what did they expect?

[Give them time to read through the page, and interact as they naturally would]

3. Upon first glance was there anything that stood out to you?
4. Is there anything that you found confusing or didn't like?
    a. Why?
    b. What would you prefer instead?
5. What would you do after this page?
    a. [Probe, would they share? Are they inclined to learn more?]
    b. If they go to something not built out, take note and redirect them
        i. to subpages in the page
        ii. If they haven't explored everything in the parent page, redirect them there
        iii. If they have explored everything in the page, subpage and parent page take them back to the home page to navigate to another page

[Repeat Section Pages till they go through all of the pages]

Post-Study Test (5 min)

1. Are you for or against the death penalty? Why?
2. What do you think are the most pressing issues with the death penalty today?
3. What do you think are the key historical factors that have affected the death penalty in America? How did they affect it?
4. How does the race of the perpetrator and victim influence death sentences?
5. Can people be proven innocent after they have already been executed? (Yes or No)
6. What are some of the key factors that might influence a death sentence? How do they affect it?
7. Do you agree with this statement: I trust the criminal justice system to fairly decide on death penalty convictions. Explain why or why not.

Closing Questions (5 min)

1. What page was most memorable to you?

    a. Why?
2. What did you think of the information you went through today?
    a. [Probing questions if they don't mention:]
    b. Was the information clear or not clear? Why or why not?
    c. Was the information engaging or not engaging? Why or why not?
3. Any other comments, questions, feedback that we haven't touched upon today?

Evaluation framework

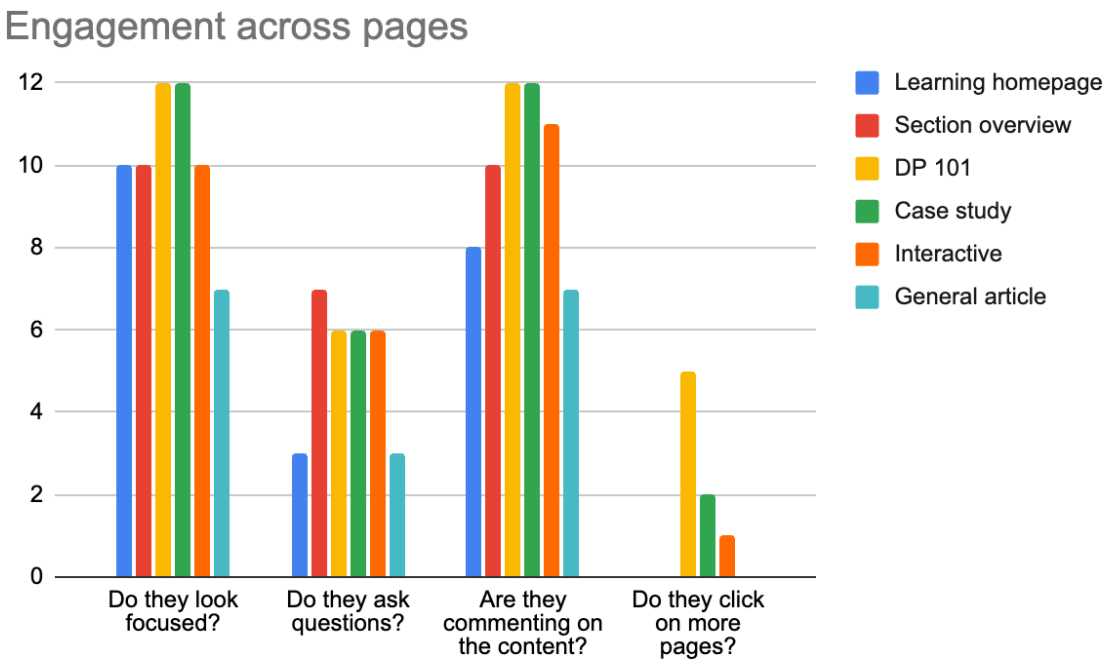
We recorded observations of participants' behavior quantitatively via a Behavior Evaluation framework as well as a Pre & Post test.

The Behavioral Evaluation framework was made with the intention to quantify key behaviors that showed if a participant was engaged. Across all pages we looked to see if participants were asking questions, commenting on the content, and if they were focused. For each page we also tracked the elements that participants engaged with the most. For example for pages with data visualizations, we noted if they mostly interacted with the data visualizations itself, the sidebar, featured articles, or if they used features like jumping ahead to a different section or data viz hovers. Using these behavioral indicators to quantify engagement across pages, we were able to analyze which pages and features got users most interested in the content, which will help us determine how to improve future iterations to achieve our goal of drawing people in and giving them a reason to learn and care.

The pre and post test was made with the intention to target a variety of learning types. Participants were given the same test before and after interacting with the prototypes to be able to directly compare their answers. The questions asked included a mix of both opinion based questions such as "Are you for or against the death penalty? Why?" as well as factual historical questions such as "What historical factors affected the death penalty? How?". By asking both of these types, we were able to observe how participants argue and support an opinion as well as whether or not they were able to retain knowledge they had just read about. For the opinion based questions, we were specifically interested in seeing if their arguments were emotional or factual based, as well as how specific their justifications were (ex. Do they use hard facts?). For the knowledge questions we just wanted to evaluate whether or not our prototype had successfully communicated the information.

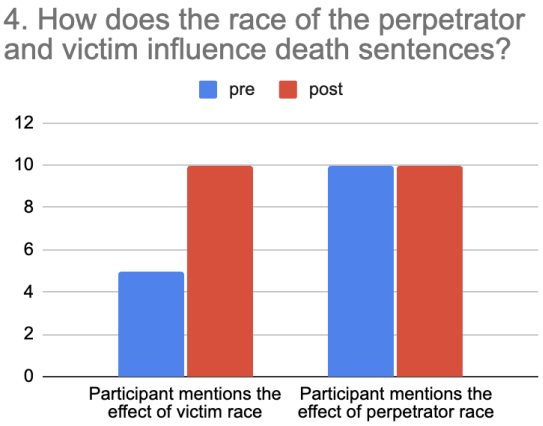
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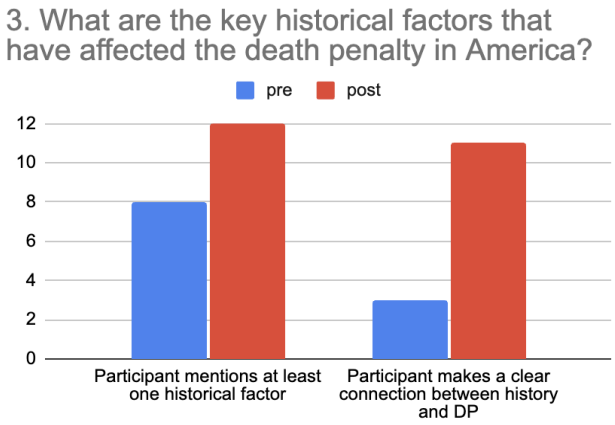
Overall Engagement



1. Overall, comparing engagement across all our content models, participants were **most focused and made most comments on the DP 101 and Case Study/Personal Story pages,** with Interactive Experience pages following closely behind.

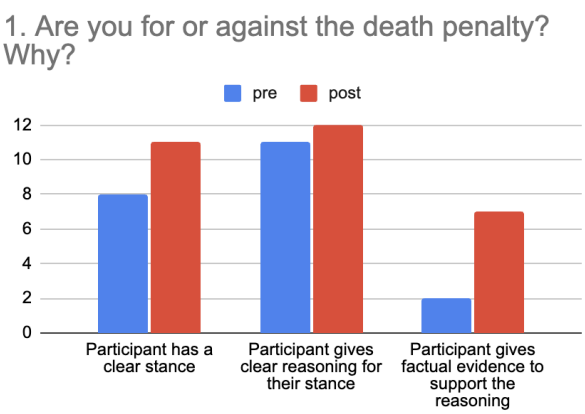
Overall Increase in Knowledge

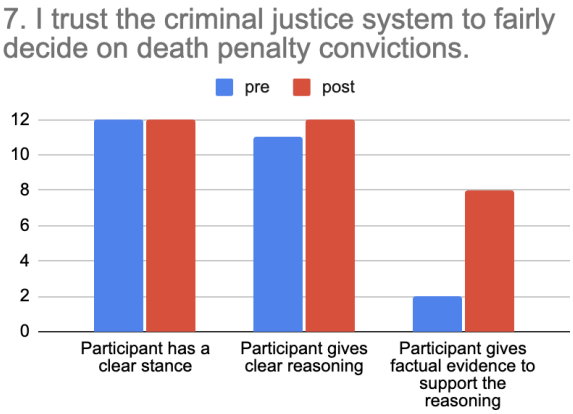




2. The prototypes helped push participants to learn new things about the death penalty and successfully recall that information.

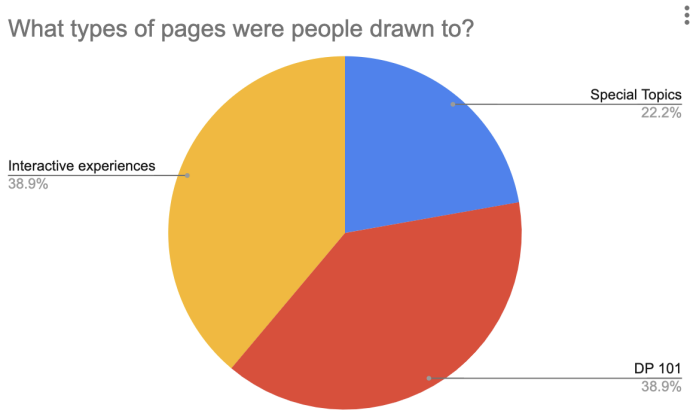
a. **41.66% more participants** mentioned the **effects of the victim's race** in death sentences after engaging with our prototype
b. **67% more participants** were able to make a clear **connection between the death penalty and historical factors** that have affected it, after engaging with the prototype showing a direct increase in knowledge of the history.





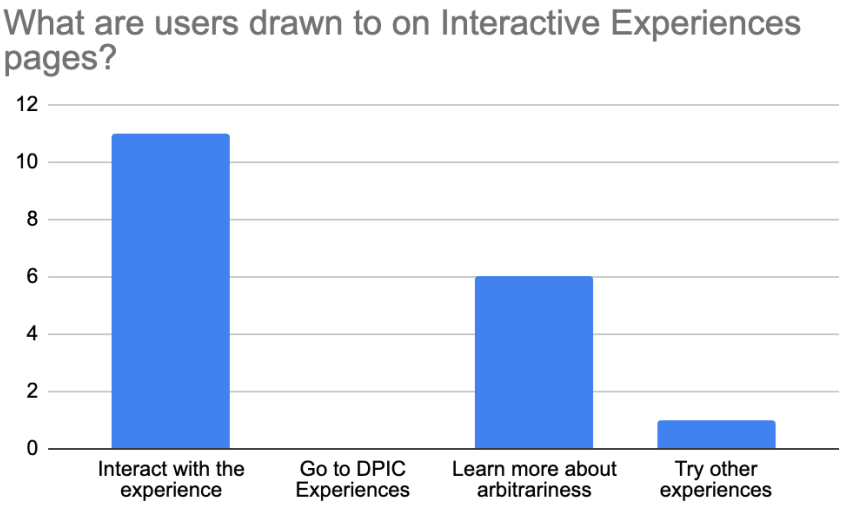
3. The prototypes helped participants strengthen their existing beliefs by increasing how strongly they feel about it and increasing their ability to back up those beliefs with real data and evidence.
    a. After interacting with our prototype, **25% more participants** had a **clear stance** on the death penalty and **40% more participants** were able to provide factual **evidence to support their stance.**
    b. When asked about their trust in the justice system, although participants did not change their initial stance, **33% more were able to provide factual evidence** to support their stance.

Learning Home Page



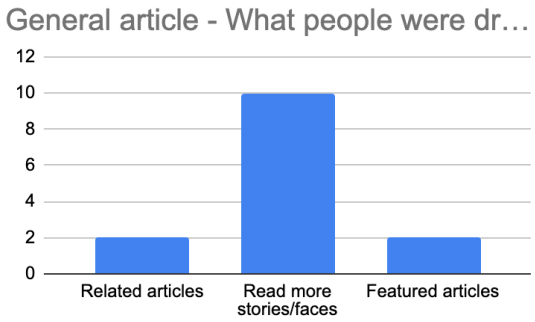
4. From the Learning Home Page, people were initially drawn to **Interactive Experiences** and **DP 101** the most.

Interactive Experience Pages



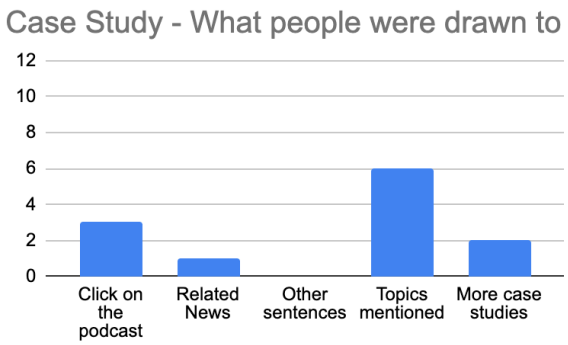
5. On the interactive experiences pages, **participants engaged with the experience itself most**, but didn't lean towards trying more experiences or checking out DPIC Experiences. The latter could be because the 'DPIC experiences' button was pretty small and only showed on hover.

General Article Engagement



6. Overall, **people were drawn to content that featured people on them**. On the general article that we showed participants, there were three options for people to go to including an embedded "Related articles" section, a section with stories about specific people, and a "Featured articles" section at the end.
    a. **83% of participant**s said they wanted to **learn more about the people featured** in the article.

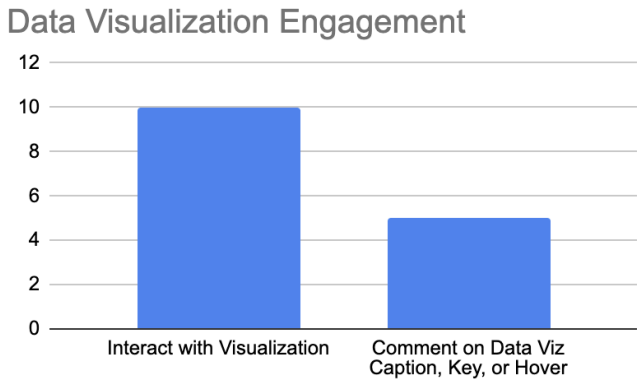
Case Study Engagement



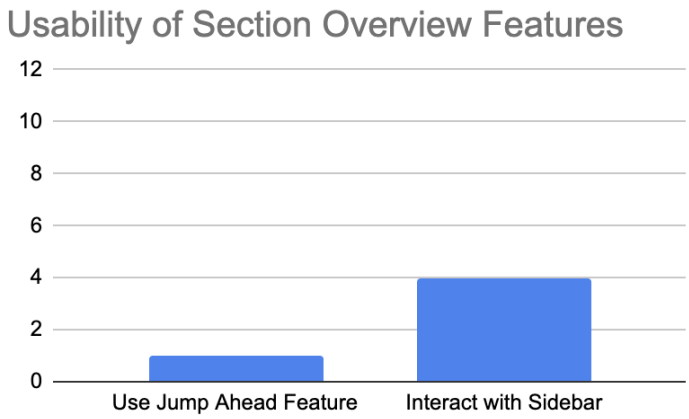


7. **People are drawn to very emotional stories and images.** However, there needs to be a balance with what and how content is being presented to people. Because while people **were engaged** with the case study, they were **less likely to continue furthe**r with the rest of the website. This is probably because the case study was very emotionally tough to read, causing people to not have the heart to read more.
    a. **All 12 participants were focused on the content** of the emotional case study and making comments on what they were reading and seeing.
    b. Very **low engagement with the rest of the content** on the page shown in the first graph.

Section Overview



8. **Majority of participants interacted with the graphs** in the section overview page, but were less focused on the caption, key and information that showed upon hover.



9. Many didn't interact with features like the jump ahead feature or the sidebar on the section overview pages, showing either **they were undesirable or their function wasn' clear to users.**

Key takeaways

1. While strong imagery, like the one in the George Stinny case study, invoked powerful emotion, it was too strong for some. Some even mentioned wanting a content warning. **How might we invoke powerful emotion without displaying graphic images?**
2. Some participants found some of the content, specifically the George Stinny case study, to be really draining to the point it deterred them from wanting to learn more. **As a result we need to include some information to either give people hope or tell them what they can do to help.**
3. One participant found the name **Death Penalty Information to sound sketchy** for a reputable organization. Felt like the Death Penalty Information Center gave the site more credibility.
4. DPIC's information is supposed to be neutral , but some participants felt like pages were too biased and as a result didn't trust it, even though they had a similar stance. **We need to iterate further on the language used to ensure they aren't perceived as biased.**
5. Participants felt that the option to personalize content was presented prematurely and a bit randomly – before they as the users knew what to expect from the content and before they felt the platform understood their personal interests. **Personalized content would be more desirable and effective after users have spent some time exploring the website as opposed to upfront.**
6. Many participants said they wouldn't click on featured or suggested articles as their primary way of getting around the website, especially if they were on the page for a specific reason. People want the ease of navigating around on the website to find their desired information. So **there needs to be a balance between pushing suggested content and navigational elements.**

7. Participants liked that some pages included sources and references for the presented information since it helped them trust the information more, but that feeling of trust isn't consistent throughout the experience since they were missing on other pages. **As a result, participants wanted sources to be more transparent and abundant throughout.**
8. Participants that engaged with the sidebar were confused about its inconsistent behavior across pages (on one page it navigates to a new page, whereas on another page it scrolls down to a different section on the same page). **Participants expect consistency in interactions to avoid confusion and build trust in the website.**
9. **Participants that engaged with DP 101 desired more basic information than just the history of the death penalty.** They were curious to learn about when the death penalty is applied, who can get sentenced, and what methods of execution still exist.

Next Steps

1. Iterating to focus on eliminating biased language used in our content models
2. Unifying display of elements that are shown across all pages, such as the sidebar
3. Redesigning features that users were unclear on how to use
4. Updating content to include suggested changes from participants and changes based off of the data results.
5. Include new Information Architecture and all built out learning experiences to this prototype and conducting usability testing