Design System Test #1 Report

This study was the first in a series of tests to ensure the design system is efficient and easily usable. This test focused on typography, graphs and tables. Static images of each element were used to display the design system content. Two pieces displaying typography elements, 3 types of graphs (line graph, scatterplot and bar graph), and two table styles were shown to participants. After viewing each image, they were asked comprehension questions to ensure they could gather information from the way data was displayed. Ten participants went through testing, and each session took twenty minutes to complete.

All ten participants did well on the comprehension questions, with an average score of 92%. The scores suggest that participants are able to sufficiently collect data from the current design system elements for data visualization. To better understand how users felt about the design system elements, participants were invited to provide any thoughts they had on the look and feel of the design system after the question period. Based on those comments, the following recommendations are made.

For the graphs in general, most participants would prefer bolded axis labels, and that the labels appear closer to the axis. The graph title should also appear closer to the graph. Participants pointed out that the graphs used different fonts, both within one graph, and between different graph types. Specifically for the scatterplot, a few participants mentioned that the data points were too large. Introducing a scalable data point for this graph would increase its usability, and make plots with large amounts of data easier to read.

Participants did very well with the tables, however, they suggested changes or additions that would make reading the table much quicker and efficient. Most participants wanted sorting options on the tables shown. While there are tables in the design system that include sorting/filtering, those options may want to be available in all tables. One participant mentioned that the padding around the tables, as well as the spacing between rows, were inconsistent, and should be updated. There were mixed feelings about the column lines and the different coloured banding in the tables. While the purpose of the design system is not to please 100% of internet users, making those features optional could be considered.

Appendix A - Stimuli

An Animator from Scarborough

Posted yesterday

Over 1500 applications from around the world flood George Lucas's animation academy each year (Lucas created the Star Wars films), but only four applicants are selected for internships. Randolph Lizarda, 21, from Scarborough, was one of them.

"I'm very excited. I'll be working in the LucasArts division animating video games, although I don't know what we're working on. They wouldn't tell me – it's confidential," Lizarda said on a break from his Sheridan College class.

As a child, Lizarda liked to draw cartoons. Now he is learning to transfer his drawing ability to the computer.

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Lizarda aspires to one day work for an animation company such as Pixar or DreamWorks. "He's an excellent student," said Dave Quesnelle, who teaches animation and is one of Lizarda's professors. Lizarda stood out after handing in his first assignment, a 10-second action sequence of a muscular circus performer balancing on a ball before jumping through a hoop of fire. This clip was the first segment on the demo reel he submitted to LucasFilm.

"I had a really good sense of his storytelling. He had the basic principles of animation [but] it was also comical. And that's our job. Anyone can make a picture move, but to make it entertaining, that's the craft of an animator."

Figure 1. Typography #1

A Stunning Comeback to an Elite Sport

Posted yesterday

The official line on Marie-Eve Chainey in the women's high jump read "NH" – shorthand for "No Height" – not exactly a fitting designation for an athlete who truly soared.

For some athletes at the Canadian track and field championships in August 2010, a triumphant return meant posting fast times after a slow season. For Chainey, it meant returning to an elite competition after a nine-year battle with kidney disease. Three years ago, she was unable to walk and even lacked the strength to wash her hair.

As a 14-year-old, Chainey would often travel 820 kilometres from Kapuskasing to Toronto to train under coach Gary Lubin at York University. At 18, Chainey went to Spain to learn the language and continue her high-jump training. While there, she became so dizzy she had to be hospitalized. That's when she got the news: Her kidneys were no longer working. She hasn't known life without dialysis since.

Healthy kidneys filter waste products from the blood. In dialysis treatment, a machine cleans the blood at regular intervals, for example, three times a week. Chainey has been using nocturnal dialysis, which works while she sleeps.

Since her original diagnosis, Chainey has had to overcome four relapses and countless other obstacles, including going blind for two months. She was told over and over she'd never jump again because her muscles were too damaged. But for Chainey, jumping is like breathing.

"From when I got sick, the goal was that I had to just be back jumping," she said. "Jumping was basically my happy place. Even more so now. Because I'm sick and there's so much going on, when I go to high jump, I don't think about anything else than just high jump and enjoying it. It is definitely my getaway. I feel normal because I don't have to think about anything else"

So on the eve of the national championships, the 27-year-old was not about to be deterred by a difficult night of dialysis. "I'm very stubborn, I'm very hard-headed ... I just had to find a way that I would be able to jump, no matter what."

Chainey certainly felt jitters at the championships; her hands wouldn't stop shaking once the competition began. She didn't clear the starting height of 1.50 metres, which she had managed to get over in practice. Still, you'd be hard pressed to find a happier last-place finisher anywhere.

"Just being out there, especially when they lined us up and they introduced us to the crowd, it was a special moment that I'll always remember," she said. "I didn't feel comfortable at first because I didn't feel I belonged. But although I didn't get a height, I still feel I belonged there. It felt awesome just to have the opportunity and experience this."

Chainey says kidney disease has cured her of her perfectionism. "I've always been a straight A student, always done well in sports and piano," she said. "So when I got sick, my life wasn't perfect anymore. I had to learn how to live with what you have, that I had limits. That was a very good lesson for me, to know that things aren't always perfect but you can still make the best of it."

Lubin is not surprised by her determination. "She used to come down from Kapuskasing, a 12-hour train ride ... in order to train. When I talk to my athletes about dedication, I say, 'Don't tell me you come from Burlington. You think that's far? How about Kapuskasing?' This is the type of person she is."

There are comebacks, and there are comebacks.
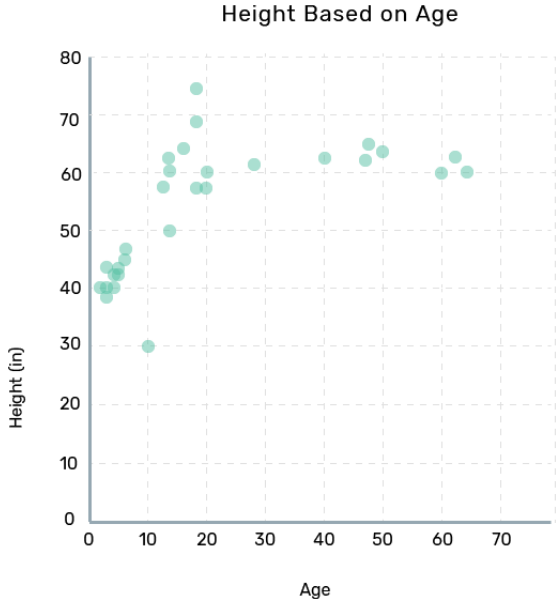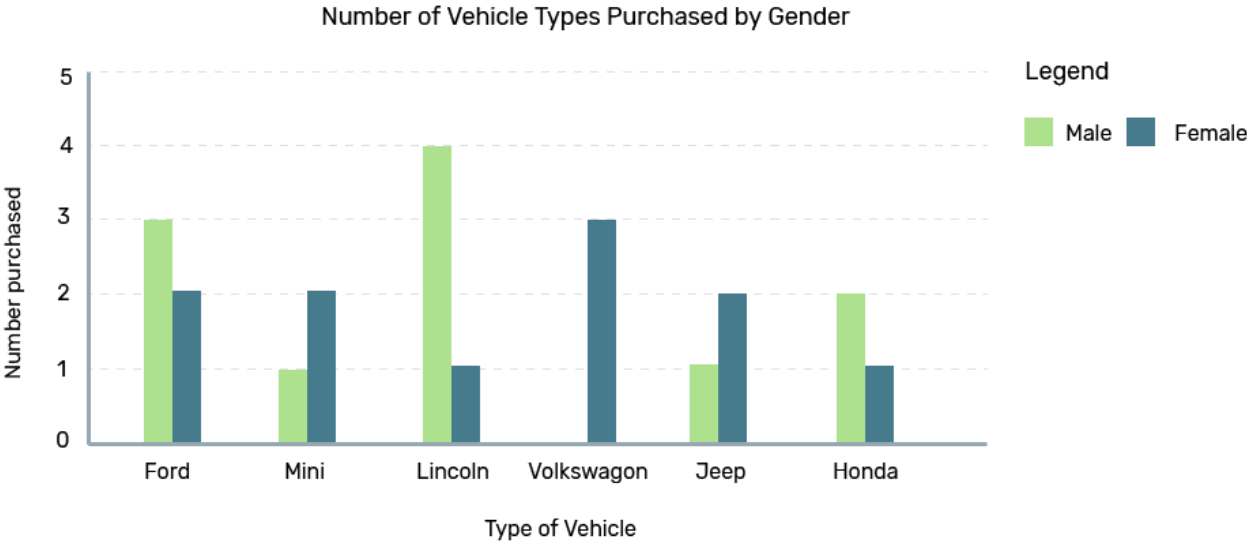
Figure 2. Typography #2

Figure 3. Line Graph

Height Based on Age

Figure 4. Scatterplot

Number of Vehicle Types Purchased by Gender

Figure 5. Bar Graph

Contact List

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Figure 6. Table #1

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Figure 7. Table #2

Appendix B – Interview Data

Typography	- First heading was much easier to read - Paragraph layout is too wide - Paragraph layout was strange - Paragraph spacing is weird - Didn't like the pull quote - Pull quote should be either colour or italics, not both - Preferred heading from typography #1 - Thought font was small - Pull quote isn't that helpful - Liked the first heading (Typography #1) *slightly* more - Long format of the text makes him less likely to read it (Typography #2) - Pull quote was hard to read - Liked the look of the pull quote, but didn't understand why it was necessary (Typography #1) - First header (Typography #1) was cleaner, the second (Typography #2) was more traditional - First header was more light and airy, and perfectly spaced - "font is good enough"
Line Graph	- Very clear - Wants smaller increments on the y axis - Easy to understand and more common - Had better spacing - Axis titles were not clear/visible
Scatterplot	- Was too busy - Cluttered - Size of the dots could be smaller - Wanted a line of best fit for the data - Took a long time to understand - Hard to see the values
Bar Graph	- Hard time explaining this - Very clear - Didn't like that you had to look at the legend to understand, it took more time
Table 1	- Hard time finding data - Hard to effectively read and understand data - Trouble keeping track of the lines when reading across table
Table 2	- The banding makes it easier to read - Had better separation - Bands were nice to look at, but didn't make finding data easier - Weird spacing between rows - Column lines stunt reading left to right

General Graph Comments	- Would prefer bolded axis labels - Padding around the edges is not consistent - Graph fonts are different - Didn't like the colours, but they would look good in grey scale - Titles and axis titles are too close to the edge of the graphs, makes them easy to miss - Could put titles in the middle of the graph - Gridlines were helpful - Colours are fine as long as they're accessible
General Table Comments	- Padding around the edges is not consistent - Wants sorting options on the tables