Reflection

I chose two separate topics (the air quality and the low fertility rate) related to my home country for the course projects. Both are ongoing issues in South Korea that I have been casually interest in, and I also thought it would be easier to get the desired data from the reliable sources. Obtaining the data was indeed the simplest step during the project.

There were various challenges that I encountered during the projects, but most of them were either technical difficulties or design choice. A major challenge was understanding existing codes that I used as reference. One of the charts that I wanted to create was a multi-line chart with tooltip box showing information of all the lines simultaneously. But I was only able to draw a moving vertical line cross the element. When I looked into the works done by other people in order to move forward, I found that many of them were using functions from different versions of D3 and different logic from what I learned in the lecture. It was overwhelming although I was aware of that this was because of the lack of my knowledge on how JavaScript works. If I plan my next project, I will study basics of JavaScript and practice what the functions in D3 do beforehand.

In terms of efficiency, I wanted to handle all the charts with fewer numbers of files. However, I ended up creating multiple files with one or two similar structures of code repeatedly. There were various methods of saving functions and variables without declaring them every time, but I was not able to properly apply those findings on my codes. Although the final output is working, I am not confident with the complexity of it.

The challenges with design choices started from the fact that there are too many options in HTML/CSS for implementing a single desired output. I learned that prioritizing the design components is crucial not only for managing time but also for the overall quality of the output.

Deciding how the intentions should be presented in the visualized data was also not easy. It came up with the question that asking what I want to deliver at first glance through the chart. While working on both projects, there were multiple times that I had to decide whether this data should be presented in a way of showing a chronological change, or the status of the specific point of time. For instance, I included annual change on the fertility rate chart in Narrative Visualization since it seemed important to show that the topic is not a new problem, whereas I only showed the data in 2019 in the pay gap chart. Even though this is also an age-old issue, I assumed it would be more effective to show that we are still far from the ideal status.

The challenges gave me an opportunity to think what I do in the ideation phase if I work on my next project. I would break down the steps of planning before actual coding and spend more time on each step. The overall attitude I kept during this project was quite extemporaneous, and it was not helpful especially with excessive options that I cannot handle properly. During the projects, I drew my initial sketches once or twice, but I would draw at least more than that, and try not to bundle up the detail.

Regarding the critiques, all of them were helpful and provided me with more structured perspectives that I have overlooked. In the Exploratory Visualization, I wanted to add the chart of PMs by seasons in order to show whether there is a repetitive pattern of PMs by seasons and regions in a year. But the plan was not successful due to my failure on time management and technical challenges. The idea of enriching the project by using the data as tourist information for potential tourists in the audience, was also very attractive. However, I lost my way when I was re-framing the entire project, so I decide not to reflect this feedback.

I tried to reflect more critiques on the Narrative Visualization. In the initial sketch, the text part was going to be located on the side of the chart, but I changed it. Also, I reorganized the order of the charts based on the opinion that important data such as pay gap should come

first in the page. Another opinion about dividing the presented page into chapter level based on the relevance of the data was partially employed. I categorized the charts into four sections and added the chapter title made the output look more structured than the initial layout.

If I had more time to work on the projects, I would add more detailed explanation in the Exploratory Visualization and finalize creating the chart that I tried to follow the feedback from the class. Also, the initial sketch had an interactive table showing the different guideline levels of PM. I ended up writing a simple description instead of the original plan. I would like to add this if there is more time. It would make the final output more fruitful than the current one.

About the Narrative Visualization, adding another pie chart of survey that asked non-married people about their attitudes on marriage and having children would raise the completion of the project. This could show how the problem discussed in the project is affecting the value of younger generation and give more contextual information. I would also try to change one or two line charts to different type of chart that could emphasize the gap between different groups.

Lastly, I would also more carefully consider the concept of interactivity. The audience with color blindness may find uncomfortable when they visit the projects since all the charts are showing different categories by colors. I would try to provide other options that could work without changing colors or not using specific colors. It could also be working based on the variation of shapes only.