

User Empathy Reflection

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1 Introduction

Food deserts are areas that lack access to affordable fruits, vegetables, whole grains, lowfat milk, and other foods that make up the full range of a healthy diet [1].

2 Anticipated Bugs

Before embarking on the User Empathy Experience with my team, I compiled a list of "bugs" that I anticipated my team would encounter while in the food desert. Below is that list with an explanation of each item:

- **Difficulty finding enough quality fruits and vegetables.** One of the challenges of living in a food desert is that it is difficult to find affordable fruits and vegetables [1]. Because of this, I anticipated that it would be difficult for my team to find enough quality fruits and vegetables.
- **Difficulty staying under the SNAP budget.** For this assignment, we attempted to simulate a family's experience in a food desert. One way we did this was by challenging ourselves to buy all of the food for our meal on a SNAP budget. SNAP is a USDA program which provides food assistance for low-income individuals and families [2]. SNAP provides approximately \$4.32 per person per day to its beneficiaries [3]. For a family of five, that works out to be \$21.15 for the entire family for the day. I anticipated that we would have problems staying under that budget. I made this judgment by looking at the receipt from a recent grocery trip where my family spent about \$177.00. Dividing this number out between the four people in my family, would result in about \$69.00 per person. \$69.00 divided by \$4.32 is about 16 meaning that we would have had to live solely off of the food we bought during that shopping trip for 16 days. In my family, it is common to buy groceries approximately once a week so we would have definitely not have been able to eat well for all 16 days.
- **Difficulty finding stores that accept EBT.** An Electronic Benefits Transfer (EBT) Card is the method by which SNAP funds are distributed. EBT is not accepted at every food retailer so I anticipated that we might have trouble finding a retailer that accepts EBT.
- **Difficulty finding low-fat protein sources.** In many food deserts, fast food chains and convenience stores are the closest, if not only, food retailers in the area [4]. Although many of these food retailers serve forms of protein, they are often high in fat content. Because of this, I anticipated that it would be difficult to find low-fat protein sources.

- **Difficulty finding low-fat dairy.** Judging from my past experiences at gas station curb stores, high-fat dairy such as ice cream is in abundance, but low-fat dairy such as milk or yogurt is not as common. Since curb stores are often the only retailers of food in food deserts, I anticipated that it would be difficult to find such low-fat dairy.
- **Difficulties using public transportation.** I have used public transportation in many places around the world with varying degrees of success. In some cases, such as when I used the Tube in London, things went smoothly. Other cases, such as when I attempted to ride a bus in New York City, were not so successful. Despite having grown up in the Denver Metro area, I am not very experienced in using the public transportation so I decided to assume the worst case scenario. Judging from past mistakes while using public transportation, I thought that it would be likely that we might miss the bus, get on the wrong bus, have to wait a long time for the bus, or miss a connection with the Light Rail.

In addition, I expected that it might be cumbersome carrying the groceries on public transportation. While in Boston for vacation this summer, I used the public transportation system to get around the city and I was often carrying a backpack. This was rather cumbersome at times. Therefore I expected carrying groceries to also be cumbersome.

- **Significant amount of time to find proper foods** I anticipated that it would take a significant amount of time to find the proper foods (if we were even able to) because of all of the aforementioned factors.

3 Actual Bugs

During my team's trip to our assigned food desert, we encountered many difficulties. Some were expected, but others were surprising. All of them gave me insight into the difficulties faced by people living in food deserts.

- **Public transportation issues.** During my team's User Empathy Experience, we used three types of public transportation: Light Rail, bus, and walking. We didn't fully succeed at any of them. The Light Rail trip from Golden to Wadsworth was uneventful. While on the train, I took a picture of the light rail and later sketched it [Fig. 1]. Our troubles began after we arrived at the Wadsworth station because we had mistimed our ride and the Wadsworth bus was not going to come for another quarter of an hour. We ended up walking one mile from Colfax to 26th Avenue. At this point, the bus had caught up to us and we took it from 26th to 38th. Had we waited for the bus to come to the Colfax stop, we would have arrived at the same time, without the mile of walking.

In our food desert, there were some stretches with nice paved sidewalks, but in other places the sidewalks were either in poor condition or nonexistent. For example, along Wadsworth near the Morning Side Retirement Community, there is no paved sidewalk, it is merely trampled down grass and dirt. I thought that it would be difficult for some of the less mobile residents of the retirement community to go to the store if that was the only sidewalk. (When I returned on my own last Friday, I found that there are sidewalks on the other side of the retirement community that are in good condition, but when we were there as a team, we didn't find those sidewalks.)

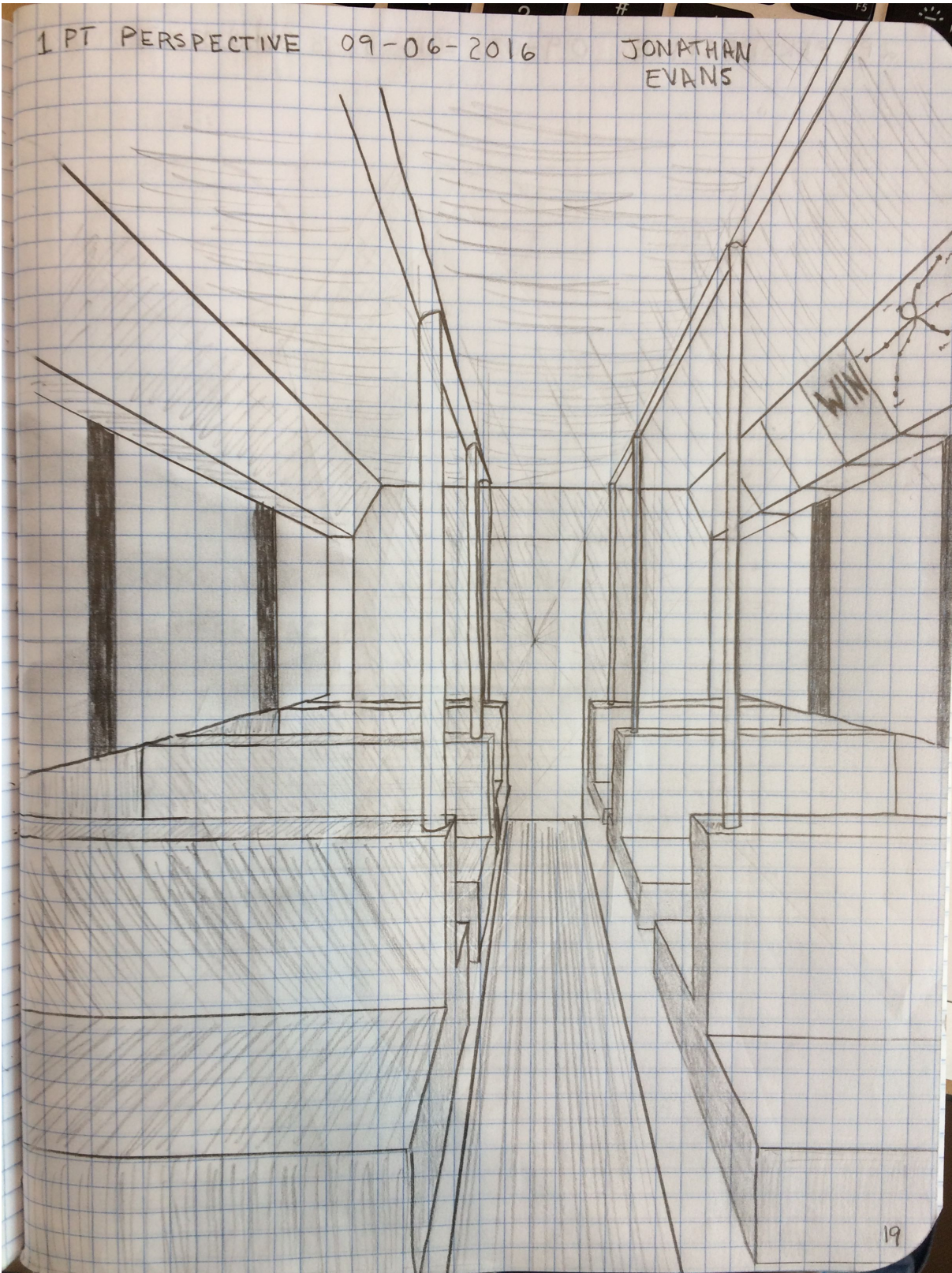


Figure 1: Sketch of Inside of Light Rail

After our time in the food desert, we mistimed the bus and ended up walking 1.5 miles from the food desert to the Light Rail stop at Colfax. The bus passed us about a block before we got to the Colfax station. As we were coming up to the Light Rail station, we saw the train leaving the station so we had to wait for the next train.

As we walked back to the Light Rail station, I was carrying the bag of groceries. Though not very heavy, carrying the bag for that distance seemed to increase its weight.

Overall, we were not successful in our use of public transportation. It gave me a greater appreciation for people who rely on public transportation for all of their transportation needs.

- **Difficulty finding quality fruits and vegetables.** We bought our food at the Shell curb store at 38th and Wadsworth. We found a great lack of fruits and vegetables in this location. There were no fresh fruits or vegetables in the store when we went as a team. There was a stand for bananas, but this stand was empty. When I returned on my own to the food desert, there was one banana in the stand. There was no shortage of fruit-flavored candies in the store, but no actual fruit. The closest thing to a fruit that we were able to find was a jar of grape jam, a highly processed derivative of a fruit. I knew that it would be difficult to find fruits and vegetables, but I was surprised at how sparse the selection was. I expected that there might be some apples or bananas consistently available but after two visits, it was clear that this was not the case.
- **Difficulty transporting perishables.** For our dairy product, we purchased some milk but did not account for the fact that it needed to be refrigerated. By the time we got back to the Mines Campus, the milk was still cool, but had noticeably heated up. If the day had been any warmer or if we had had to wait for a longer time between arriving on campus and eating our food, the milk may have been warmer and less safe.
- **Possible language barriers.** Our team's food desert was

4 Analysis

5 Remaining Unknowns

6 Summary and Conclusion

References

- [1] Centers for Disease Control and Prevention (2012). *A Look Inside Food Deserts* [Online]. Available: <http://www.cdc.gov/features/FoodDeserts/index.html>. [Accessed 11-Sep-2016].
- [2] United States Department of Agriculture (2016). *Supplemental Nutrition Assistance Program (SNAP)* [Online]. Available: <http://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program-snap>. [Accessed 11-Sep-2016].
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- [4] Mari Gallagher Research and Consulting Group (2014). *Food Desert Balance Community Fact Sheet* [Online]. Available: http://www.marigallagher.com/site_media/dynamic/project_files/Food-Desert-and-Food-Balance-Fact-Sheet.pdf [Accessed 12-Sept-2016].