

Team Possible

Backpacks

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1. Introduction and Overview:

Our group decided to explore backpacks. We wanted to look at something that we all interact with on a daily basis. Our backpacks have huge impacts on our daily lives as students. Backpacks come in a wide variety of shapes and sizes, to meet different students preferences and needs. However, backpacks aren't just used by students, they are becoming increasingly popular among business professionals and many commuters. Through our observations, we learned many unique ways that our stakeholders use their backpacks. Some students' backpacks doubled as a pillow for a quick power nap, while many carried not just school supplies, but also gym clothes or their lunch. Some of the most valuable attributes in backpacks to our stakeholders were the style, durability, and organization of the bag. Weight and capacity were also large concerns. As we move forward into the ideation phase of this project we will be focusing on determining ways to optimize the internal structure and organization of the backpacks, determine the best method to make a structurally sound and comfortable external construction, and how to make the backpack versatile in order to support the many needs of our different stakeholders.

2. Stakeholder Analysis:

College Students: These people use their bags for academic life: anywhere from packing lunches to storing school supplies.

Commuters: These are students or professionals that rely on various means of transportation to get to campus including cars, bike, bus, MARTA, etc.

Working Professionals: These people need a way to carry their work belongings along with anything they will require throughout the day once they leave their residence.

- **Students:** These people use their bags for academic life: anywhere from packing lunches to storing school supplies.
 - **College:** These people will use their bags for academic life as well as to carry other necessities around campus on a day-to-day basis, these people typically purchase their own backpacks.
 - **High School:** These students carry their backpack to and from school as well as around to their classes with all of their school supplies as well as to any sports practices or extracurriculars that they are part of.
 - **Middle:** These students carry their backpacks to and from school but often do not use them much during the day; they typically carry school supplies in their backpack.
 - **Elementary:** These children typically do not purchase their own backpack, but rather a parent will. They use it to carry school supplies and possibly a lunch to and from school.
- **Parents of students:** These people are solely responsible for purchasing and packing backpacks for their younger children.
- **Professors/Teachers:** These people want to minimize distractions in the classroom and may use backpacks themselves.

- **Deans/College Professional Staff:** These people are concerned with safety in the classroom.
- **Hikers:** These people take their backpacks outdoors and even rely on them for survival.
- **Athletes:** These people may keep full sets of athletic clothes, food, and shower supplies all in the same bag.
- **Backpack manufacturer:** These people want to create a cheap, marketable, and durable product.
- **Janitors:** These people want light and stowable backpacks so they can clean easily.
- **Retailers:** These people want marketable products that look good and fit well on shelves.

3. Data Collection Methods

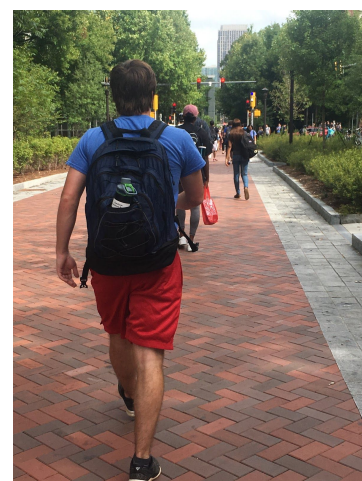
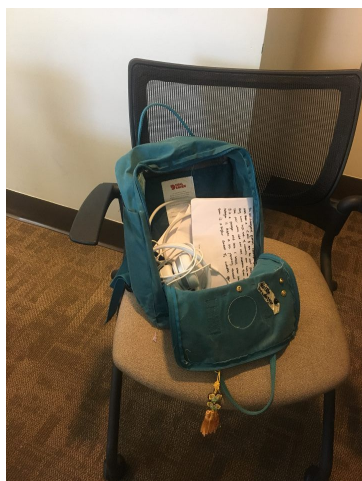
3.A. Summary:

Stakeholder Category	Observed	Interviewed	Surveyed	TOTAL
College Student	30	5	65	100
Traveler/Commuter	14	0	61	75
Working Professionals	1	2	5	8
TOTAL	45	7	131	183

3.B. Observations:

All members of our team completed observations at various locations across campus. We broke up locations based on where members of the team frequented the most. Some of the places that we observed at included: Tech Green, the Student Center, on the bus, CRC, as well as various other places across campus. In order to record the observations we made, we created a Google Form to consistently make note of the location, stakeholder, and observational note from what was seen. This gave a central location for team members to submit and view observations that others made as well as to ask questions about observations if needed. In addition to the locations that each members were assigned to observe at, team members would make note of any interesting uses for backpacks when they were seen walking around campus, in class, or in any other location.

Observation Images:



3.C. Interviews:

All team members interviewed at least one person individually. The interviews were all recorded, but due to busy schedules, we found it difficult to find times where multiple members were able to show up to interview one person. Logistically, we conducted the interviews in a location that was convenient for us as well as the interviewee. Using the guideline/questions stated below, we asked them questions to find out about their currently backpack, things they look for in a backpack, how they organize their backpack and other things of the like. From the interviews, we hoped to find out a lot of general information about what individuals thought of their backpacks in order to guide the questions that we would ask about in the surveys. After the interviews were over, we debriefed as a team to create the affinity notes from that interview. Often time this was done before the transcription was made, so the interviewer talked about the information that he/she remembered and notes were written about that, and then more notes would be generated in quote form when the transcription was available to read.

Interview Guideline/Questions:

1. Ask about current backpack, favorite/least favorite things, uses of the backpack
 - a. What kind of backpack do you currently have?
 - i. Can you explain the features a little bit?
 - b. What are your favorite features about your current backpack?
 - c. What are your least favorite features about your current backpack?
 - d. Are there any features you wish your backpack had?
 - e. Are there any features on your backpack that you don't use at all?
 - f. Where do you typically bring your backpack?
2. Organization of their current backpack
 - a. What things do often carry in your backpack?
 - b. How do you organize those things?
 - c. Is there anything that you carry that you find cannot fit in your backpack?
 - i. How do you carry those things?
3. Durability of backpack
 - a. How many years do you expect your backpack to last?
 - b. Do you ever have problems with things on your backpack breaking?
 - i. What are things that break the most often?
4. Purchasing a new backpack
 - a. What price point do you look for when purchasing a new backpack?
 - b. What do you look for when you are searching for a new backpack
 - c. Where do you typically purchase your new backpacks?

3.D. Surveys:

Each person on our team distributed the survey. People were contacted via Facebook (GT Class of 2020, GT Class of 2021), GroupMe, and Reddit (r/gatech). These groups were chosen because we knew that many students and alumni use these social media platforms and had diverse backgrounds.

Backpack Survey

Q1 Are you a College Student?

- ☐ Yes (1)
- ☐ No (2)

Skip To: Q20 If Are you a College Student? = Yes

Q21 What is your age range

- ☐ 15 - 19 (1)
- ☐ 20 - 29 (2)
- ☐ 30 - 39 (3)
- ☐ 40 - 49 (4)
- ☐ 50 - 59 (5)
- ☐ 60 - 70 (6)
- ☐ 70+ (7)

Q20 What is your gender?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Non-binary/third gender (4)
- ☐ Prefer to self-describe (5) _____
- ☐ Prefer not to say (7)

Q2 Do you commute?

- ☐ Yes (1)
- ☐ No (2)

Skip To: Q14 If Do you commute? = No

Q17 What mode of transport do you use to commute?

Q18 Where do you place your backpack while commuting?

Display This Question:

If Are you a College Student? = No

Q14 Do you bring your lunch to work?

- ☐ Yes (1)
- ☐ No (2)

Skip To: Q16 If Do you bring your lunch to work? = No

Display This Question:

If Are you a College Student? = No

Q15 Do you have a lunch box?

- ☐ Yes (1)
- ☐ No (2)

Display This Question:

If Are you a College Student? = No

Q16 Do you bring a change of clothing to work?

- ☐ Yes (1)
- ☐ No (2)

Q3 What days of the week do you normally use your backpack? (Select all that apply)

- ☐ Monday (1)
- ☐ Tuesday (2)
- ☐ Wednesday (3)
- ☐ Thursday (4)
- ☐ Friday (5)
- ☐ Saturday (6)
- ☐ Sunday (7)

Display This Question:

If Are you a College Student? = Yes

Q13 How do you get between class (walking, birding, bus, etc..)

Display This Question:

If Are you a College Student? = Yes

Q9 Where do you put your backpack during class?

Q4 Where do you take your backpack? (select all that apply)

- ☐ Class (1)
- ☐ Work (2)
- ☐ CRC/Gym (3)
- ☐ Dining Hall (4)
- ☐ Home (5)
- ☐ Other (6) _____

Q5 What is the best feature/part/aspect of your backpack?

Q6 What is the worst feature/part/aspect of your backpack?

Q7 On a normal day, what do you keep in your backpack?

- ☐ Notebooks (1)
- ☐ Textbooks (2)
- ☐ Paper (3)
- ☐ Phone (4)
- ☐ Pencils/writing utensils (5)
- ☐ Laptop/electronics (6)
- ☐ Keys (7)
- ☐ All of the above (8)
- ☐ Other (9) _____

Q8 What do you normally have with you that you don't put in your backpack?

Q10 On a scale of 1 - 5 how comfortable is your backpack

- ☐ Very Uncomfortable (1)
- ☐ Somewhat Uncomfortable (3)
- ☐ Not Uncomfortable or Comfortable (4)
- ☐ Somewhat Comfortable (6)
- ☐ Very Comfortable (7)

Display This Question:

If On a scale of 1 - 5 how comfortable is your backpack = Very Uncomfortable

Or On a scale of 1 - 5 how comfortable is your backpack = Somewhat Uncomfortable

Q23 What makes your backpack uncomfortable?

Display This Question:

If On a scale of 1 - 5 how comfortable is your backpack = Somewhat Comfortable

Or On a scale of 1 - 5 how comfortable is your backpack = Very Comfortable

Q24 What makes your backpack comfortable?

Q11 How much would you be willing to pay for a good backpack?

- ☐ \$5 - 10 (1)
- ☐ \$10 - 20 (3)
- ☐ \$20 - 30 (4)
- ☐ \$30 - 40 (5)
- ☐ \$40 - 50 (6)
- ☐ \$50+ (7)

Q12 How often do you replace your backpack?

- ☐ Every few months (1)
- ☐ Every year (2)
- ☐ Every 2 years (3)
- ☐ Only after a multiple of years (4)
- ☐ Never (5)

Q19 Rank the following things in order of importance to you (1 being the most important & 6 being the least)

- _____ Style of the backpack (1)
- _____ Comfort (2)
- _____ Access to items in bag (3)
- _____ Size of backpack (4)
- _____ Lightweight (6)
- _____ Many compartments (7)

3.E. Competitive Analysis

Source	Brief 1 Sentence Summary
https://www.amazon.com/Backpack-Computer-Resistant-Business-Man/cro/dp/B01LY3QXGP/ref=sr_1_4?ie=UTF8&qid=1537034174&sr=8-4&keywords=backpack	Customers like backpacks that are spacious, organized with different compartments and waterproof, but dislike malfunctions (fabric tearing, zippers breaking, and when features don't complement each other e.g. usb charger).
https://www.amazon.com/Backpack-Business-Charging-Resistant-Computer/dp/B06XZTZ7GB/ref=sr_1_5?ie=UTF8&qid=1537034174&sr=8-5&keywords=backpack	Customers who rated this backpack 5 stars value comfort, pockets, and the ability to use it while traveling or in the office while low raters disapproved of broken zippers .
https://www.amazon.com/Modoker-Vintage-Backpack-Charging-Notebook/product-reviews/B073CNXM95/ref=cm_cr_ar_p_d_hist_1?ie=UTF8&filterByStar=one_star&reviewerType=all_reviews&pageNumber=1#reviews-filter-bar	Customers like styles that can transition between school and work, easy access to their items, and products that aren't going to fall apart after a few uses.
https://doi.org/10.1016/j.jmpt.2010.06.003	Increased backpack weight is related to a higher annual incidence of back pain.
https://www.nbcchicago.com/investigations/bulletproof-backpacks-4915	One manufacturer, Guard Dog Security, expanded their bulletproof backpacks to more common stores like Walmart in the wake of

06601.html	recent tragedies.
http://time.com/4017521/your-kids-e-normous-backpack/	Discussion on the proper weight for backpacks and the proper health precautions to be taken in a backpack
https://www.target.com/p/swissgear-getaway-17-5-daypack-backpack-heather-gray/-/A-51329679	People enjoy the sleek look of this backpack, but also like that it is spacious with lots of pockets and good opportunities for organization
https://www.wsj.com/articles/why-execs-are-ditching-briefcases-for-backpacks-1507822861	An explanation on why business people are beginning to prefer the backpack to the briefcase. The practicalities and convenience of a backpack
https://www.nytimes.com/2018/03/21/us/florida-school-shooting-clear-backpacks.html	A discussion on schools requiring clear backpacks in response to the recent school shootings
https://www.huffingtonpost.com/2014/08/27/what-heavy-backpacks-are-doing-to-kids-bodies-_n_5700485.html	A description on how backpacks should be designed in order to create the proper weight distribution and size to relieve the stress off of people's backs

4. Analysis of Data

4.A. Quantitative:

Demographics:

126 College Students

5 Non-College Students

- 4 between the ages of 20-29
- 1 between the ages of 40-49

52.67% Male

44.27% Female

1.53% Non-binary/third gender

1.53% Prefer to self-describe

26.72% Commuters

80% Non-College Students bring their lunch to work

75% Non-College Students have a lunch box

40% Non-College Students bring a change of clothing to work

Over 90% of participants normally use their backpack Monday through Friday.

98% college students take their backpack to class.

89.7% college students take their backpack home.
 36.5% college students take their backpack to a dining hall.
 35.7% college students take their backpack to work.
 25.4% college students take their backpack to the gym.

On a normal day, 95.2% college students keep pencils/writing utensils in their backpack.
 On a normal day, 94.4% college students keep laptop/electronics in their backpack.
 On a normal day, 92.1% college students keep notebooks in their backpack.
 On a normal day, 66.7% college students keep paper in their backpack.

42% of participants rate their backpack as somewhat comfortable.
 33.6% of participants rate their backpack as very comfortable.

51.5% of participants would be willing to pay \$50+ for their backpack.
 23.1% of participants would be willing to pay \$40-50 for their backpack.

77.1% of participants replace their backpack after multiple years.

Participants were also asked to rank the following features from 1 to 6, with 1 being the most important and 6 being the least important.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Style of the backpack	1.00	6.00	3.60	1.90	3.60	129
2	Comfort	1.00	6.00	2.65	1.40	1.95	129
3	Access to items in bag	1.00	6.00	3.29	1.46	2.15	129
4	Size of backpack	1.00	6.00	3.30	1.60	2.55	129
5	Light weight	1.00	6.00	4.16	1.61	2.60	129
6	Many compartments	1.00	6.00	3.99	1.78	3.15	129

Based on the quantitative data above, our stakeholders have backpacks that they use almost daily. Many non-college students use them for carrying their lunches or a change of clothes, and college students take it with them to key places such as where they live, where they learn, and where they eat. Over half of respondents would pay at least \$50 for a backpack and usually replace it after multiple years. Our

stakeholders seem to value durability. The table above shows comfort having the lowest mean. The respondents want a backpack that is comfortable with easy access to items inside.

4.B. Qualitative:

Through the affinity diagramming activity we found that there are three main aspects that drive how people interact with their backpacks: the exterior structure, what is inside the backpack, and how they travel with their backpack. In our data collection, we found that users were concerned with the shape, style, comfort, price, and durability of their backpacks. Weight was a particularly important factor noted in our survey results impacted by the external structure. Internally we found users were interested in the number of pockets, specialized storage for certain items, and the total capacity of the bag. In interviews, several users emphasized the importance of water-bottle pockets on the sides of their backpacks. Finally, it matters how people get around with their backpack. We observed many different styles of how people carry and use their backpacks on the go, and where people tend to put their backpacks when they settle down for a while.

5. Personas:

Studious Stan

Attributes

- 19-year-old male
- On-campus college student
- Technology expertise: 8/10

About Me: Stan is a rising a third year at Georgia Tech, but he's a senior by credit hours. He takes his backpack everywhere since it holds everything he needs for a successful day at school. Stan can be messy, so he depends on a well-organized backpack to help structure his academic life.

Concerns

- Durability
- Comfort
- Organization

Quotes

- "I'm on a tight budget so I value a backpack that will last a while."
- "I like that the back of my book bag is padded so the things in it don't poke my back"
- "I only wear my backpack to class because it's too heavy to wear anywhere else."



Travelin' Trish

Attributes

- 22-year-old female
- Commuting college student
- Technology expertise: 9/10



About Me: Trish is a fourth-year at Tech studying computer science with threads in Microsoft Powerpoint and Terminator 2. She lives off-campus and wants a backpack that is easy to travel with. She values bags with plenty of space because she doesn't have time to go home during the day. She travels on everything from busses to bikes to Birds to cars, so she wants a bag that stores easily and is comfortable to carry.

Concerns

- Storage space
- Comfort
- Ease of access during commute

Quotes

- "I wear my backpack while riding my bike."
- "I like having quick, easy access to important things like my epipen."
- "If my bag is too full, sometimes I'll just carry my water bottle separately."

Name: Full-Time Frank

Attributes

- 35-year-old male
- Financial consultant
- Technology expertise: 6/10

About Me: Frank works as a financial consultant at Toaster Strudel. He works long hours which require him to carry all the things that he might need throughout the day in his work backpack. He often even uses a separate bag on days he goes to the gym.

Concerns

- Professional style
- Plenty of space
- Versatility

Quotes

- "My work bag it's kind of gross how much stuff is in it so because I'm here ten hours a day I feel like I need to have everything that I might ever need so there's water bottle, my laptop, my charger, a mouse (I never use the mouse) but I thought maybe I need it, a couple of sunglasses, some mail. I've got a couple of bottles of lotion hand lotion just like oh yeah Tylenol, a tide pen."
- "It's not unheard of for me to have two bags in my hands [lunch and candy] with this one on my back"



6. Reflection:

The team was able to acquire observations with great ease, and was able to remove all preconceived notions about solutions for how to fix the backpack while in the first phase of the project. The entire team had a large amount of pre-exposure to backpacks and most likely already had thoughts on what we believed needed to be fixed and solutions to predetermined problems, but the team did a great job remaining unbiased as we collected data on the backpacks

and did not use language that pointed toward a solution for the entirety of analysing the data. This allowed us to acquire unexpected insight, and get true customer insight and information. They team also excelled in simply collecting a large number of observations. With backpacks being an item that is easily observable on a college campus, we were able to continually observe those around us.

While the team was able to acquire a vast number of observations, we were weak in debriefing the observations we had come across. This lead to a few of the affinity notes that were produced being of little use to us because the interview or observations had not been readily discussed with the rest of the group to flesh out the affinity notes and discover the true meaning of what the person being observed was intending. Due to the teams busy scheduling we were unable to often meet to discuss what we had discovered, but this could have been prevented by having a weekly scheduled meeting or posting discussion on our observation excel document in order to get clarification and expansion on certain affinity notes. We also occasionally fell short on creating truly meaningful and insightful affinity notes.

The team was well prepared to create the stakeholder analysis with ease because we had worked to identify stakeholders previously in class from the IDEO video, discussed stakeholders from that video and from the homework entailing stakeholders involved in classroom technology. Because of this extensive discussion on stakeholders in class, we were well versed in how to identify primary and secondary stakeholders. The team also felt comfortable with creating the affinity diagram because of the practice and time that was allocated during class. It was easy to start to see how groups formed during the project because of the practice done with the affinity notes created from observations on classroom technology, and was convenient to be able to ask questions on intricacies on the affinity diagram during class because of the easy access to instructors.

The portion of the project entailing surveys brought our team the most trouble. We had trouble determining exactly what the survey should be testing, and what questions would be most beneficial to ask to either affirm what we had begun discovering or gain new valuable insight. This was difficult because we had not as a team fully analysed the new observations we had acquired. We understood from class what the definitions of an open ended and close ended question are, but were unsure of the best way to facilitate these questions. We were also slightly confused on how to form affinity notes from the survey. We did not know whether every open ended answer warranted its own response or if certain qualitative data should be formatted into affinity notes, and how to go about transforming these things into affinity notes in general. More guidance on the formation, and analysis process of surveys would have been greatly beneficial. It also would have been beneficial to have more information on how to properly perform competitive analysis and how to go about finding articles and then what to breakdown from those articles.

Appendix A: Affinity Diagramming Activity

User Profiles Table

USER LABEL	Brief description
U1	Female student, observed
U2	Female traveling on bus, observed
U3	Female traveling on bus,, observed
U4	Female student, observed
U5	Male student, observed
U6	Student, observed
U7	Male student, observed
U8	Female student, observed
U9	Male student, observed
U10	Male student, observed
U11	Male student, observed
U12	Male traveling on a Bird, observed
U13	Female student, observed
U14	Male student, observed
U15	Male student, observed
U16	Male student, observed
U17	Male student, observed
U18	CRC employee, observed
U19	Student, observed
U20	Student, observed
U21	Student, observed
U22	Female traveling on bike, observed
U23	Male traveling on bike, observed
U24	Female student, observed
U25	Male traveling on bike, observed
U26	Cyclist, observed
U27	Male commuter, observed

U28	Female commuter, observed
U29	Female traveling on bus, observed
U30	Male student, observed
U31	Male student, observed
U32	Male student, observed
U33	GTPD officer on a bike, observed
U34	Female student, interviewed
U35	Male traveling on bike, observed
U36	Female student, observed
U37	Male student, observed
U38	Male student, observed
U39	Female traveling on bus, observed
U40	Male student, observed
U41	Female student, observed
U42	Male student, observed
U43	Male student, observed
U44	Male traveling on bus, observed
U45	Female student, observed
U46	Female student, interviewed
U47	Male student, observed
U48	Amazon Customer, Competitive Analysis
U49	Amazon Customer, Competitive Analysis
U50	Amazon Customer, Competitive Analysis
U51	Amazon Customer, Competitive Analysis
U52	Amazon Customer, Competitive Analysis
U53	Amazon Customer, Competitive Analysis
U54	Amazon Customer, Competitive Analysis
U55	Amazon Customer, Competitive Analysis
U56	Amazon Customer, Competitive Analysis
U57	Amazon Customer, Competitive Analysis
U58	Amazon Customer, Competitive Analysis

U59	Researchers at Colorado State University, Competitive Analysis
U60	Guard Dog Security, Competitive Analysis
U61	Target Customer, Competitive Analysis
U62	Target Customer, Competitive Analysis
U63	Target Customer, Competitive Analysis
U64	WSJ Fashion Journalist, Competitive Analysis
U65	NYT Journalist, Competitive Analysis
U66	Student, interviewed
U67	Student, interviewed
U68	Young professional, interviewed
U69	Female student, interviewed
U70	Female professional, interviewed
U71	Female student, surveyed
U72	Female student, surveyed
U73	Female who travels by bike, surveyed
U74	Male student, surveyed
U75	Female commuter, surveyed
U76	Female student, surveyed
U77	Male student, surveyed
U78	Female student, surveyed
U79	Female who travels by bike, surveyed
U80	Female student, surveyed
U81	Female student, surveyed
U82	Female who travels by bus, surveyed
U83	Male who travels by bus, surveyed
U84	Female who travels by bus, surveyed
U85	Female who travels by bus, surveyed
U86	Female commuter, surveyed

U87	Female student, surveyed
U88	Female student, surveyed
U89	Male student, surveyed
U90	Female student, surveyed
U91	Female student, surveyed
U92	Female student, surveyed
U93	Male who travels by long board, surveyed
U94	Female student, surveyed
U95	Male student, surveyed
U96	Female who travels by bus, surveyed
U97	Female who travels by bike, surveyed
U98	Female student, surveyed
U99	Female student, surveyed
U100	Female student, surveyed
U101	Female student, surveyed
U102	Female student, surveyed
U103	Female who travels by bus, surveyed
U104	Female student, surveyed
U105	Female student, surveyed
U106	Female student, surveyed
U107	Female commuter, surveyed
U108	Female student, surveyed
U109	Female student, surveyed
U110	Male who travels by motor scooter, surveyed
U111	Male student, surveyed
U112	Male commuter, surveyed
U113	Male who travels by bus, surveyed

U114	Male student, surveyed
U115	Male who travels by bus, surveyed
U116	Male student, surveyed
U117	Female commuter, surveyed
U118	Male commuter, surveyed
U119	Male student, surveyed
U120	Male student, surveyed
U121	Female commuter, surveyed
U122	Male commuter, surveyed
U123	Female student, surveyed
U124	Male travels by bird, surveyed
U125	Male student, surveyed
U126	Male travels by bus, surveyed
U127	Male student, surveyed
U128	Male travels by bike, surveyed
U129	Male commuter, surveyed
U130	Female student, surveyed
U131	Male travels by bike, surveyed
U132	Male student, surveyed
U133	Male student, surveyed
U134	Male student, surveyed
U135	Male student, surveyed
U136	Female travels by bike, surveyed
U137	Female commuter, surveyed
U138	Female student, surveyed
U139	Female student, surveyed
U140	Male student, surveyed

U141	Male commuter, surveyed
U142	Male travels by skateboard, surveyed
U143	Male travels by bus, surveyed
U144	Male student, surveyed
U145	Male student, surveyed
U146	Male student, surveyed
U147	Female student, surveyed
U148	Student commuter, surveyed
U149	Male student, surveyed
U150	Female travels by bus, surveyed
U151	Female student, surveyed
U152	Female commuter, surveyed
U153	Male student, surveyed
U154	Male student, surveyed
U155	Male commuter, surveyed
U156	Male travels by bus, surveyed
U157	Male student, surveyed
U158	Female student, surveyed
U159	Male travels by bus, surveyed
U160	Male student, surveyed
U161	Male commuter, surveyed
U162	Male commuter, surveyed
U163	Male commuter, surveyed
U164	Female travels by bus, surveyed
U165	Male commuter, surveyed
U166	Non-binary/third gender commuter, surveyed
U167	Female commuter, surveyed

U168	Female commuter, surveyed
U169	Non-binary/third gender travels by bus, surveyed
U170	Female travels by bus, surveyed
U171	Male travels by bird, surveyed
U172	Male commuter, surveyed
U173	Female commuter, surveyed
U174	Female commuter, surveyed
U175	Student, surveyed
U176	Male travels by bike, surveyed
U177	Male student, surveyed
U178	Male student, surveyed
U179	Female commuter, surveyed
U180	Male commuter, surveyed
U181	Male student, surveyed
U182	Male student, surveyed
U183	Male student, surveyed
U184	Male travels by bike, surveyed
U185	Male student, surveyed
U186	Male travels by bus, surveyed
U187	Male commuter, surveyed
U188	Male student, surveyed
U189	Male commuter , surveyed
U190	Male student, surveyed
U191	Female commuter, surveyed
U192	Male travels by bike, surveyed
U193	Female travels by bus, surveyed
U194	Male student, surveyed

U195	Male student, surveyed
U196	Male travels by bus, surveyed
U197	Female Professional, surveyed
U198	Female Professional, surveyed
U199	Female Professional, surveyed
U200	Male Professional, surveyed
U201	Male Professional, surveyed

Observational Notes Summary

Source	Notes generated
Observations	48
Interviews	60
Survey open ended responses	45
Competitive Analysis	18
Total	171

[illegible]