

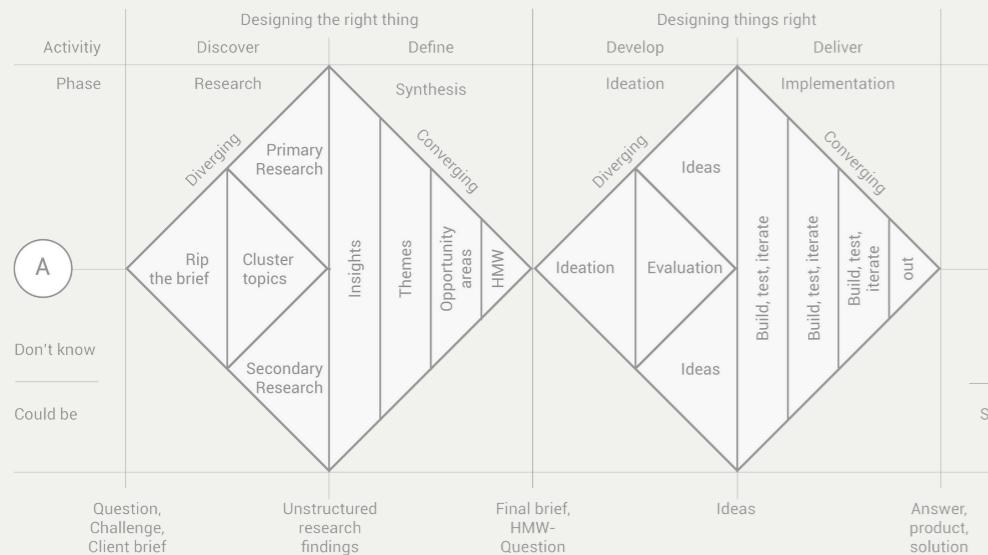
TRIP MATE

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What is Design Thinking

Design thinking is an iterative creation process that centers empathy. It can look different depending on how many times you have to iterate through each step and based on the language used to describe each step.

The one central diagram in the design thinking process is the double diamond.



Shown to the left with the different breakdowns it displays the divergent and convergent thinking that is essential to this process. You start off at point A which is the general issue you are trying to solve and begin to delve into the first

divergent step, Empathy. In this step the team will conduct research on the topic through observations, interviews, surveys, and shadowing. It's critical during this stage to connect with real people to learn how they feel about the problem and the issues they need remedied. Then after as much information as possible is collected a rough driving problem statement is created, this is called a "how might we..." Question. The design thinkers then begin to define their problem and some solutions that can remedy the issues the end user would like to be solved. After that stage a final "How might we..." question is created and prototyping begins. This can start by a simple drawing on a paper and in the final stages be a high fidelity, or high accuracy to the final product. Then in the delivery phase the product is created and tested on the end user before fully rolling out the product.

The beauty of this process is that at any time you can go back to an earlier step if the team feels they aren't quite in the right direction. Later in this paper you will see how this process panned out personally for my team and I.

Our Design Thinking process

When my team and I first met we had no research and no prior ideas just a couple starting off questions. As American study abroad students we were very interested in travel specifically in the realm of sustainability.

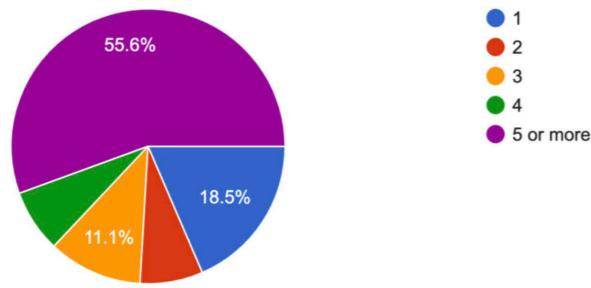
We began by each writing some "How might we" questions and synthesized them to reach a starting point. From that point we jumped into the empathy phase each breaking out and coming together again to synthesize our research and ideas which I will discuss further later on. This divergent and convergent process within our team on each step was important to not only maximize our ideation potential but also diversified our ideas. We went through our ideation process judgment free with in order to foster a free environment where all ideas are welcome. We had several iterations of the empathy and define phase before we came up with our final how might we statement of, "Ease the planning, social, and financial pressures for traveling students?" We then moved forward in our process and ended up with our final app Trip Mate with Trip tips from students just like you.

Overall our project was successful and helped sharpen my skills on critical thinking, compromise, and delivering.



Empathy

How many countries (excluding host country) are you traveling to this semester, if any?
27 responses



During our Empathy phase we started by coming up with the rough “How might we” question of “Give students tools to participate in mindful consumption without stripping the cultural experience while

traveling?” We felt very confident in this starting point and hit the ground running. We did cultural probes, documented observations, sent out surveys, and did interview with students and locals on traveling specifically in the context of study abroad. We wanted to discover and document students travel habits and attitudes without influencing them with bias. Our cultural probes left us with the most bias results as we shows students a picture in Denmark and a picture in another country and then asked them if they still felt traveling to other countries was better than traveling in Denmark. Since local travel is a more sustainable way to travel it was important for us to explore if we could encourage students to stay in Denmark more. However, we found across the board, including our survey above, most students wanted to see as many countries as possible while abroad. Our least bias research method was observations while on our own trips. As actions speak louder than words especially when it comes to sustainability peoples actions and words don’t always match up.

We found in our empathy phase that students top priorities are maximizing time on weekend trips, budgeting, having unique authentic experiences, and getting good pictures for social media. Below I included a word map of some key phrases from our observations.



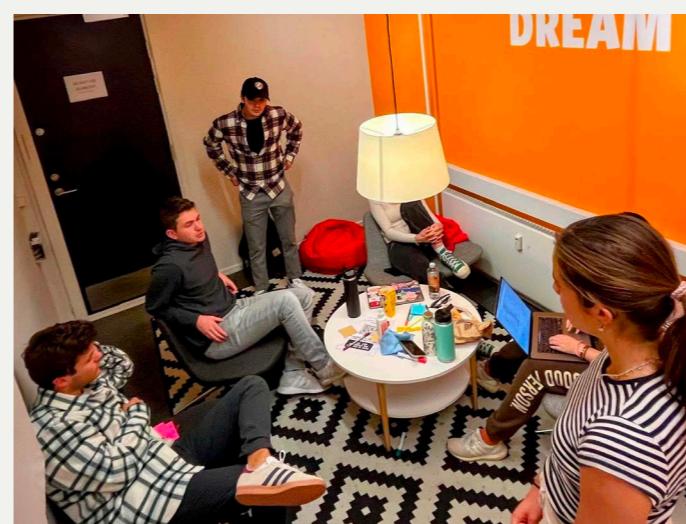
Define

Part 1:

After our Empathy phase we began to piece together all our finding and try to come up with a better understand of our problem and how end what end users truly want. To the right I included the most important findings of our empathy map. An empathy map is a collection of what people say, do, think, and feel. From our finding in our Empathy phase we adjusted our “How might we” question to, “Help students travel more sustainable while dealing with social pressures and time constraints?” As you can see we had two iterations of the Define phase. After our Ideation phase we met with a test group of people to gain feedback of our idea and they seemed disinterested however, they started mentioning things that were related to our less developed idea. Because of this we came back to the define phase to redo our “How might we” statement to align more closely with our end users.

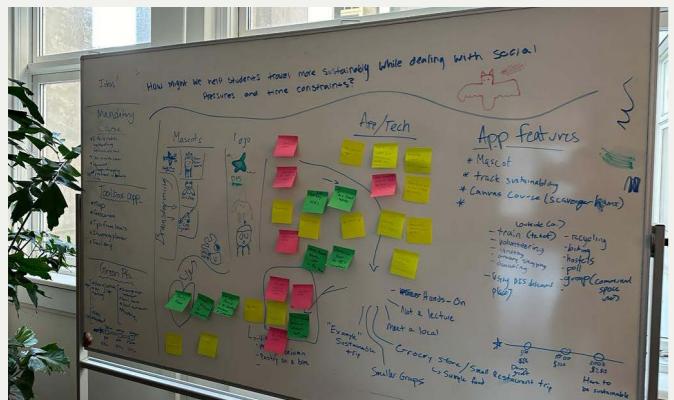
Part 2:

We learned from our test group that although students appreciate monetary incentive there was a certain extent of interest. Our favorite idea was a point system in which the more points you earn, by being sustainable such as choosing a train instead of a plane, the more money you make. They were more interested in gen-



eral guides for culture and mindful consumption. We realized our initial scope was too narrow and it was important to keep an open mind. Over all we found our users wanted to make the most of traveling/ document their time while abroad with little interest in sustainability. Our final “How might we” statement became, “How might we ease the planning, social, and financial pressures for traveling students?”

Ideation

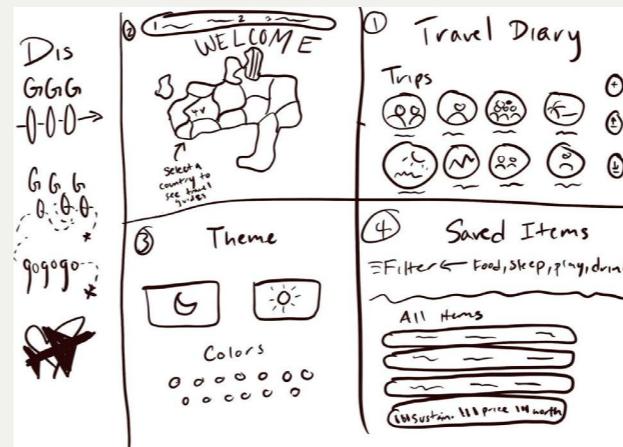


In this phase we started by individually writing down as many post it's as possible with ideas regardless of the feasibility. We than started sorting them and making connections on similar ideas for the sustainable travel apps and tools. We even came up with some mascots like Pete the plane.

Our big three ideas that took shape were a mandatory course, a toolbox app, and a green points system. The mandatory course was a one credit DIS course in which students would have sustainability centered field studies, have an opportunity to make friends outside their major, and learn how to be more sustainable in Denmark. The toolbox app is an app that helps students plan and log trips, and would have tips from locals about where the best places are to visit and eat. Lastly, the Green points would be a point system through DIS in which participating in sustainable travel practices would earn them point to get cash in return.

After our meeting with our test group and our second define phase we ended up moving forward with the toolbox as it seemed more in line with the end users wants.

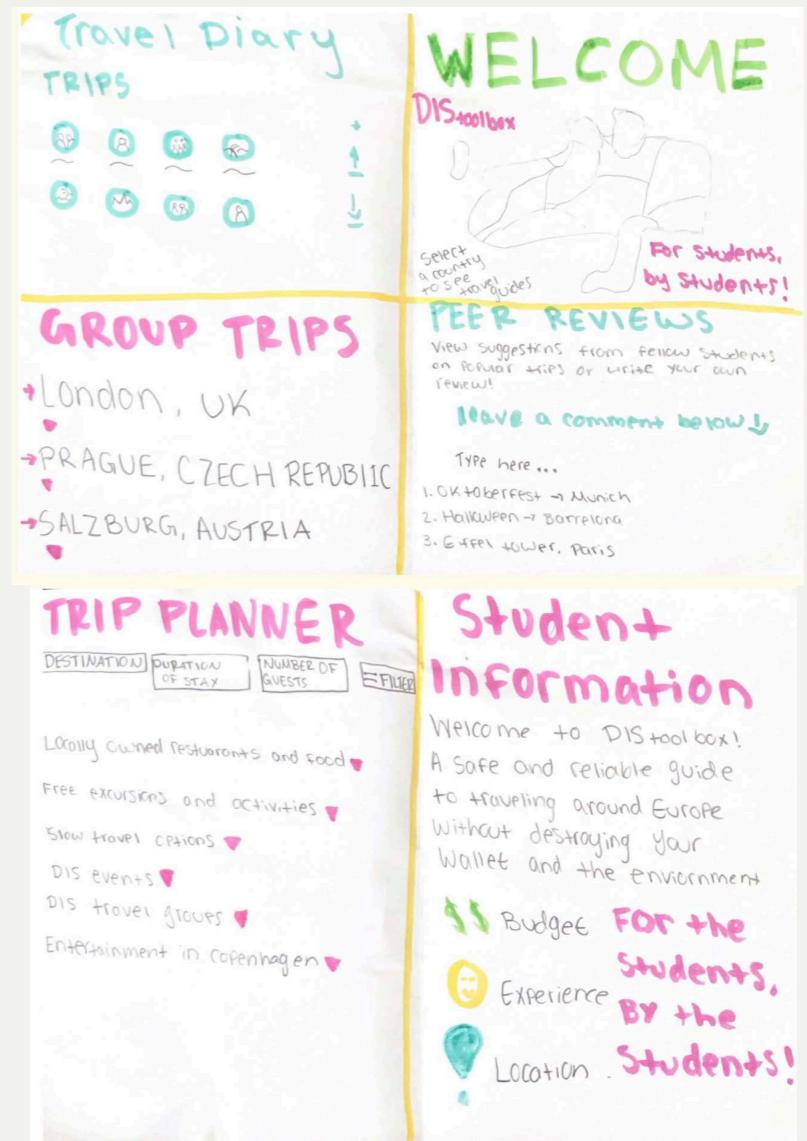
Prototype



During ideation we came up with a ton of broad ideas of things we could put in our tool box app and got many ideas from our test group. Our general idea was to have a app with many tools in it surrounding travel for students to plan and document trips with.

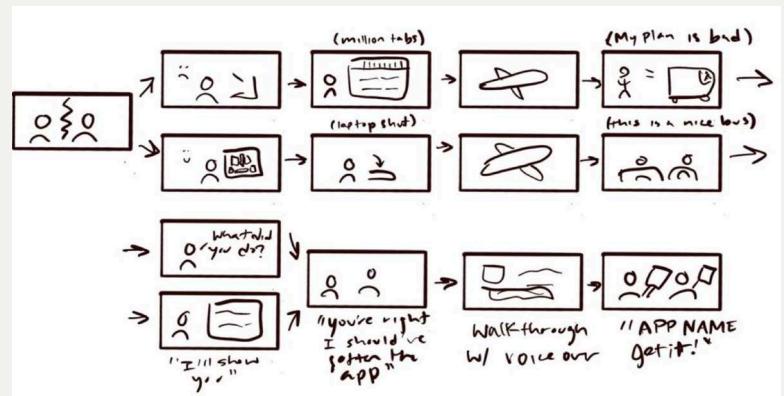
We decided to start prototyping by each drawing out our own vision of what the app would look like. The first photo was my first low fidelity prototype of the app in which I put 4 screens which include a homepage, a travel diary, a theme section to customize the app, and a saved items section from trip iterates.

After we each created our own version we discussed what we thought would be important in our app based on all of our research and came up with a group low-fidelity prototype. In this prototype we wanted to have some sort of visually pleasing home screen, a trip planner section, a travel diary, and an about page to explain the app. A big idea we wanted to incorporate was using past students iterates on trips in the app for future students to use and gain insight on. It was be an app with relevant recommendations to the users values.



Deliver

In our final delivery we had a mid/high-fidelity prototype of our app as well as a final promo video for the app. To the right is the story board for our final video. To give a summary of the video we began with two students discussing their trip and one recommends the app



and the refuses to use it. The screen then splits and shows both students on the trip doing the same things however the one who uses the app is getting where they need to be and the other is having a bad trip. It cuts back to the class room where the students are discussing how their trip went and the student with the app again encourages the other to get Trip Mate.

In the prototype, created using figma, there's a home screen, a save tab for saved items, and a search tab to search locations and trips. For each trip the student has the option to save it as private or public based on if they want to share what they did. They assign each item a score on the worth it meter so future students can gage if they want to include those items in their plan or not. The apps goal is to be simple and easy to use. Overall creating this app was super fun and the deliver phase went very smooth with the final product turning out really great.



Home Screen:

- Your Trips:** Shows thumbnail images for Tromsø and Malmö.
- Jump Back In:** Buttons for Prague, Chamonix, Budapest, and a plus sign.
- Popular Destinations:** Thumbnails for Rome and Barcelona.
- Bottom Navigation:** Trips, Saved, Search.

Vienna Screen:

- Home:** Shows thumbnail images for Tromsø and Malmö.
- Photos:** Shows thumbnail images for Prague and Chamonix.
- Restaurants:**
 - Sushi Palace: Worth it Meter: 3.0
 - Square Meal: Worth it Meter: 9.2
 - The Lamb: Worth it Meter: 6.8
- Activities:**
 - St. Peters Church: Worth it Meter: 8.0
 - Palace: Worth it Meter: 9.7
- Accommodations:** Shows thumbnail images for Vienna and Malmö.
- Bottom Navigation:** Trips, Saved, Search.

Trips Screen:

- In Progress:** Shows thumbnail images for Prague and Chamonix.
- Private:** Shows thumbnail image for Tromsø.
- Public:** Shows thumbnail images for Vienna and Malmö.
- Bottom Navigation:** Trips, Saved, Search.