

# EXPANDING TOBY'S TALE

## USING DESIGN TO ENGAGE YOUTH IN TYPE 1 DIABETES EDUCATION

SCOPE 2016-2017

### THE DESIGN PROCESS

#### Talk to Users

Our team used a user-centered design methodology. We connected with potential users at all points in the process, engaging in user research, co-design, user testing, and validation. The user insights we gathered from these interactions guided our design decisions, ensuring that our prototypes address the areas of opportunity described on the right.

#### Play with Prototypes

Building upon the insights we gained from talking to users, our team created five prototypes of new activities to be added to Toby's T1D Tale. After generating a number of ideas, we engaged in paper and digital prototyping to bring them to life. These prototypes allowed users to play with our concepts early on in the development process, yielding insights and improvements incrementally.

**Insulet Corporation**

**Olin College  
of Engineering**  
SCOPE



Hi! I'm Toby and I have type 1 diabetes. My friends have been working to help tell my story! Explore the poster to learn more!



### TOBY 1.1

Toby's T1D Tale is an iPad app for children 12 and below designed by Insulet with the intent of educating the kids about type 1 diabetes (T1D). The current app, version 1.1, is available on iOS for iPad. The main screen is a map that Toby navigates, helping the user learn about type 1 diabetes through informational sections, stories from Toby's life, and opportunities to test their knowledge.

### PROJECT GOAL

The goal of the 2016-2017 Insulet SCOPE project was to evaluate and create a more interactive, engaging version of Toby's T1D Tale. This was achieved by engaging with users and developing content that keep children interested in the app while also increasing the educational value of the experience.

### AREAS OF OPPORTUNITY

#### T1D Education



In developing prototypes for the next version of the app, we wanted to make sure to enhance the overall educational value. Carb counting was a major theme we encountered while talking to users, acting as a way for children to take on a more active role in their own

healthcare. With this in mind, we developed two prototypes to help users build an intuition for carb counting. These games, Multiple Choice Carb Counting and Snack Time, build a carb value intuition and test that knowledge in context to help Toby build a snack.

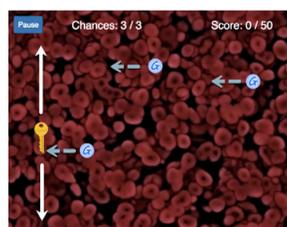
#### Customization



A system that allows for personalization increases user engagement. By allowing the user to put time and effort into customizing their environment, we increase their ownership and investment, encouraging the user to come back to the app to re-engage with their creations. The

Treehouse provides such an opportunity for customization, allowing the user to unlock furniture items to decorate their space.

#### Engagement Through Fun



We strongly believe that there is value in including experiences that don't directly enforce educational content, but simply provide an opportunity for the user to have fun. This concept of "fun for fun's sake" keeps users excited about using the app, motivating them to come back and play again. The Captain Insulin game provides such an opportunity for fun and allows the user to engage in a challenge.

#### Achievements and Progress



Tangible representations of progress encourage a sense of accomplishment and investment in the app. The promise of future achievements provokes the user's motivation to explore new areas and return to the app to develop mastery of the content. Users collect experience points,

mirroring their collection of knowledge throughout their lives. They also earn badges, visible in the treehouse, at critical moments in the app, such as receiving a perfect score on a quiz or visiting a new area of the map.

#### Delight Through Discovery



A theme that we noticed in other children's apps and during our own user testing was the desire for exploration among children in our age range. Many users, when playing with Toby's Tale 1.1, attempted to explore areas of the map that were not interactive. The linear

storybook style of the current app is not well-suited for exploration, causing the user to not get the chance to explore. Integration of microinteractions is a great way to allow and encourage exploration and increase engagement through the app.

### OUR TEAM



Bonnie Ishiguro



Meg McCauley



Charlie Mouton



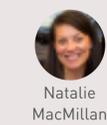
Haley Pelletier



Meghan Tighe



Amon Millner



Natalie MacMillan



Dag Olsen