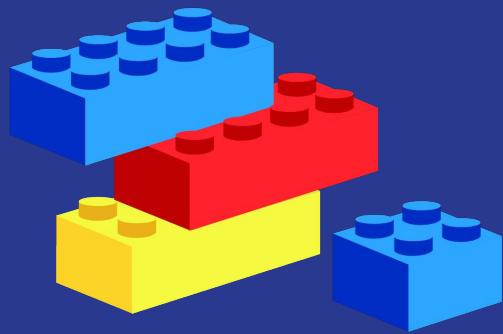


# Funky Builder!

Jacob Grunwald, ART 251 Fall 2023



# Summary Statements

**Problem:** People get so caught up in their normal routine, they often forget to stop and have some fun along the way.

**Goal:** My activity will let users build an abstract idea or emotion, which will force them to get creative to portray that idea by enforcing constraints such as time limit and amount of resources. I will measure success by observing if people have fun while doing it.

- **How Might We** create a memorable experience that can be completed in around 2 minutes?
- **How Might We** encourage users to think outside the box when engaging in the activity?
- **How Might We** make it so people can participate at home as well?



# Interview Summaries

## Caleb, 25

- Taking six classes and works on campus.
- Pretty busy all day long while on campus, would be hard for him do complete an activity.
- Enjoys hands-on activities like drawing, graphic design, and LEGOs.
- Said that activities are more fun when done with others

## Joseph, 27

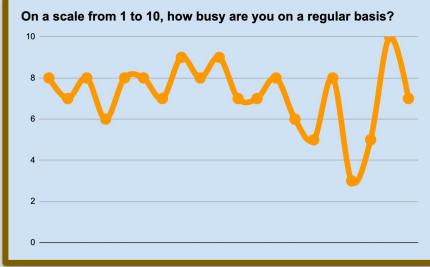
- CSU East Bay student and video game enthusiast.
- Likes to engage in recreational activities in his little free time.
- Enjoys character creation and world-building as well as role-playing games such as dungeons and dragons.
- Would have time to stop for something quick if it caught his attention.

## Carlos, 25

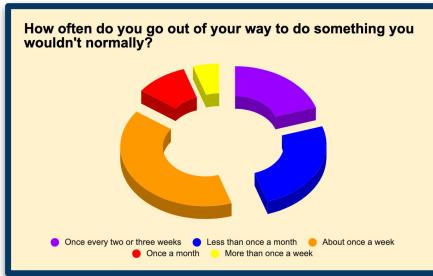
- CSU East bay art student.
- Enjoys LEGOs due to the fond memories he has surrounding them.
- Emphasized how much fun he had creating memories with his brother building LEGO sets.



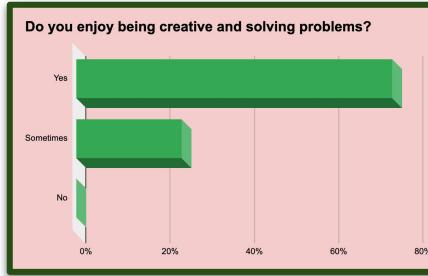
# Survey Summary



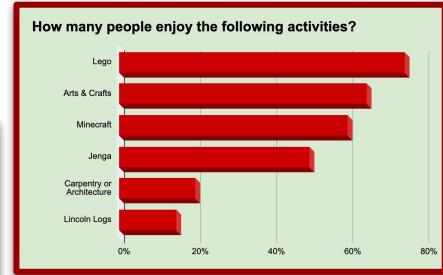
- When asked how busy they are, most people gave a **7 or higher**.
- Since most people are busy, the activity needs to be short.



- Some people have time for about one activity per week, but most are **even more busy than that**.



- Every single survey taker** said they enjoy being creative and solving problems at least sometimes.



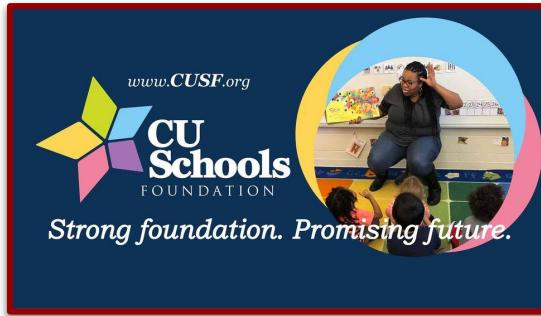
- Most people enjoy building activities, especially LEGOs.
- People like working with their hands.



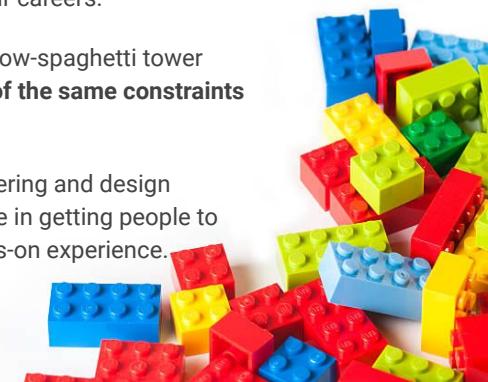
# Secondary Research, part 1

[http://proxylib.csueastbay.edu/login?url=https://www.proquest.com/news\\_papers/learning-fun/docview/1020319746/se-2?accountid=28458](http://proxylib.csueastbay.edu/login?url=https://www.proquest.com/news_papers/learning-fun/docview/1020319746/se-2?accountid=28458)  
accessed 18 October 2023

- Around 125 local students who had just completed their freshman year participated in the Freshman Focus program, an enrichment event organized by the Champaign Urbana Schools Foundation CU Scholars Program.
- Students engaged in a variety of **activities designed to enhance their knowledge and skills.**
- Students also **learned about teamwork** by constructing structures out of dry spaghetti noodles, tape, and string in a team-building exercise.
- Benefits the students by **helping them learn more about their community** and serves as an investment by the community in its students.



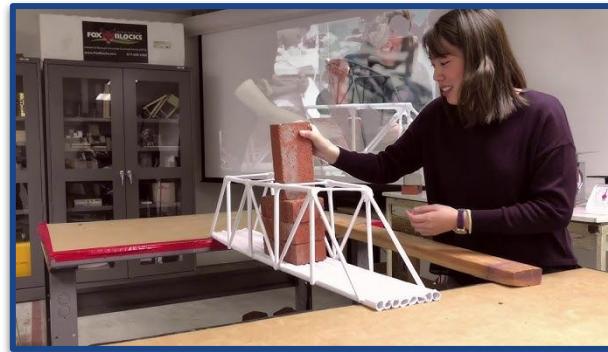
- Emphasizes the **effectiveness of hands-on activities in building relationships** as well as teaching skills or lessons.
- The overall goal of the activity was to foster some of the important skills needed later in their careers.
- Showcases the famous marshmallow-spaghetti tower experiment, which **features many of the same constraints** that I am planning to implement.
- Emphasizes teamwork and engineering and design principles, shows that there is value in getting people to participate cooperatively in a hands-on experience.



# Secondary Research, part 2

<http://proxylib.csueastbay.edu/login?url=https://www.proquest.com/news/papers/valmeyer-student-sets-record-his-paper-bridge/docview/402578887/se-2?accountid=28458> accessed 18 October 2023

- Paper Bridge Challenge held at Southern Illinois University Edwardsville **aimed to spark interest in engineering and construction** careers among middle school students.
- The Paper Bridge Challenge **drew over 400 middle-school students** from various schools.
- The initiative sought to counter the low interest in construction and engineering careers among students.
- **Taught basic engineering principles**, and career booths promoting construction and engineering were present at the event.
- The Paper Bridge Challenge required students to build bridges using 11-by-7-inch poster board that could support a minimum of one pound of weight.



- I want to have my participants build like they did in this challenge.
- Emphasizes how important and memorable an activity like this can be in the right context.
- It drew many people in, and the participants are quoted saying **they had fun and learned a lot**.
- The prize winner was able to go way above and beyond using his **creativity and ingenuity** to create a bridge that was far more structurally sound than any other in the competition.



# Persona

**Summary:** Kevin is a small business owner and a student at Cal State East Bay working towards his degree in construction management. Between keeping his bakery running smoothly, making sure his homework is always done on time, and taking care of his family, he has very little time for leisurely activities. When he does have free time, he mostly spends it bonding with his children over their shared interest in Minecraft or Legos.

**Demographics:** \$50,000 per year, father and husband, Bay Area resident, CSU East Bay student, small business owner

**Psychographics:** Family man, loves building and construction, very little free time, hard-working, fun-loving

**Pain points:** Worried that he does not manage his time well, wants to spend more time bonding with his family

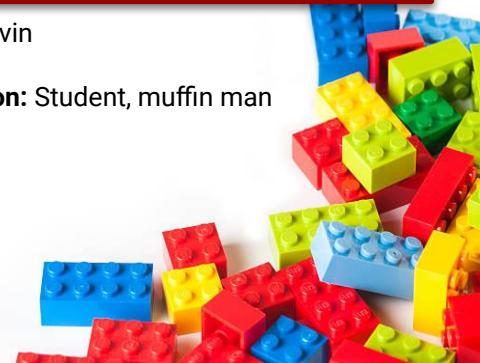
**Goals:** Complete his education, maintain his business, keep a healthy family life



**Name:** Kevin

**Age:** 30

**Occupation:** Student, muffin man



# Empathy Map

**Say:** "Sorry kiddo, Daddy has to go to class right after work today! We can play Legos another time."

**Think:** "My job and education are both important, but I wish I had more time to do fun activities with my kids. If only there was something quick and fun we could do together."



**Do:** Be on the lookout for fun things that can be done quickly and can be done with his kids.

**Feel:** The crushing weight of his many responsibilities as well as the love and support of his family.



# Features, Diagrams, Materials Needed

## Features:

1. Fun and simple hands-on activity
2. Can be completed in under 2 minutes
3. Encourage participants to share their creation online

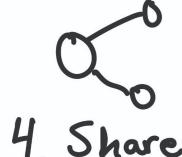
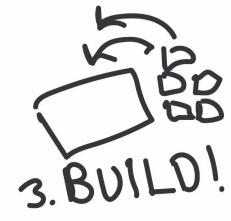
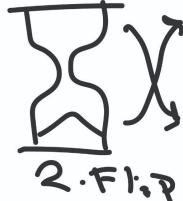
## Word list

Happiness  
Anger  
Nostalgia  
Luck  
Dreams  
Sadness  
Friendship  
Credit score  
Failure  
Perception  
Wonder  
Greed  
Hunger

Funny  
Hangry  
Intuition  
Charisma



1. Draw

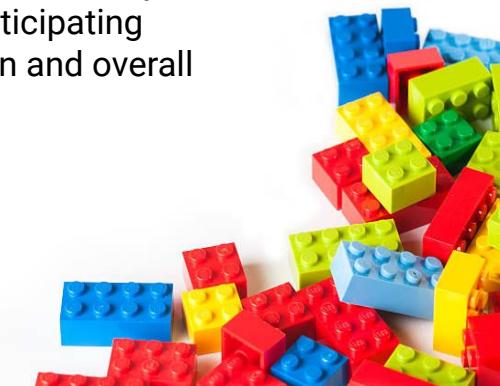


## Materials:

1. Assorted LEGO bricks (can also be done with arts and crafts materials)
2. Word list
3. Container for words
4. 1- or 2-minute hourglass

## Measures of Success:

1. Users follow the instructions easily
2. Users have fun while participating
3. Users share their creation and overall experience



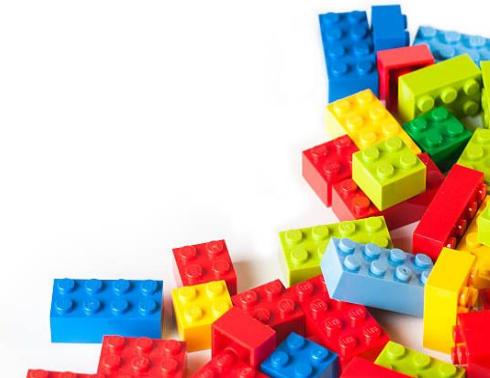
# Usability Test Report Summary

## Summary

- I set out to make something fun, fast, and creative for people who get swept up in their day-to-day lives.
- I discovered that almost everyone relished the opportunity to get creative and hands-on.
- As testing continued, I gained a better understanding of which constraints to enforce, when to allow the users some freedom, and how to most effectively streamline the overall experience.

## Goal

- Success was measured by people's willingness to participate, their enthusiasm for the experience, and if they felt like they got to be creative.



# Usability Test Report Summary continued

## Iterations

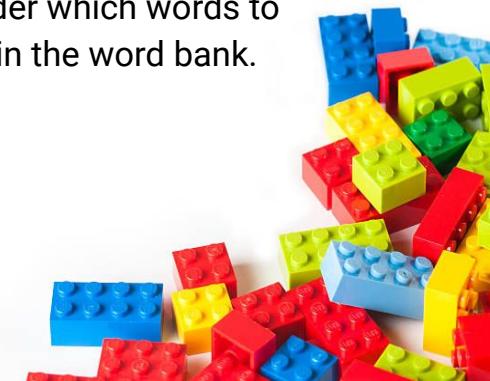
- The first iteration was focused on getting something that people could play with.
- The second iteration made the overall experience more understandable.
- The third and final iteration streamlined the experience, made it completely analog, and improved the aesthetics.

## Obstacles

- Main obstacle was ensuring the experience was easy to understand and participate in, even without my guidance.
- Making sure it was fully analog and aesthetically pleasing was also important.

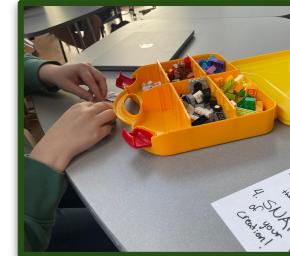
## Outcome

- The design was able to overcome the challenges, but it can still be further improved upon.
- In the future, I may reconsider which words to include in the word bank.



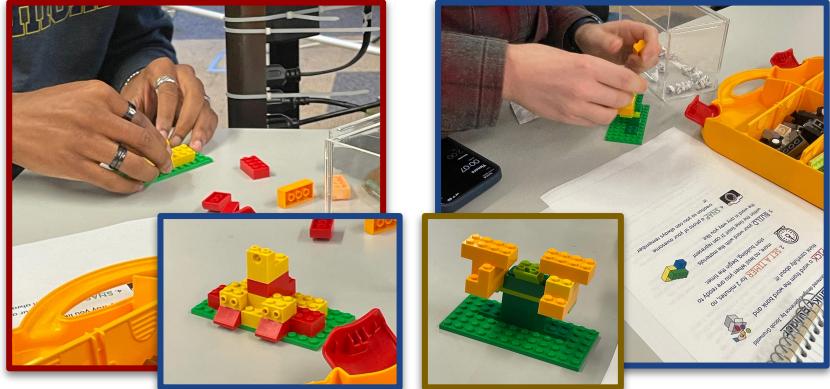
# Rapid Prototype Testing

- Users said that they enjoyed the experience.
- Two minutes was an appropriate amount of time.
- I offered minimal guidance aside from keeping the time.
- Some of the words were difficult to build.
- Despite this, they still all had fun.
- For the next prototype, I will have clearer instructions.



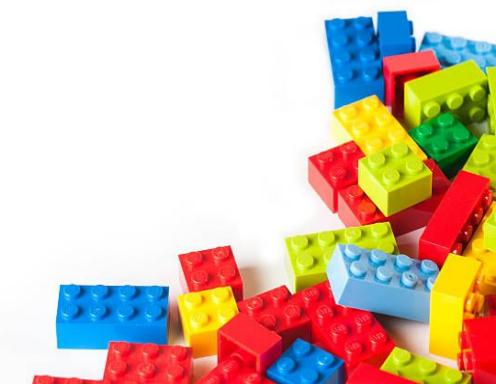
# Iterating and prototype #2

- Had a more clear and well-designed instruction sheet, made it easy for users to complete it on their own.
- Testers all had fun and liked what they built.
- One of my testers wanted to do it again afterwards.
- They all said that they liked how it played out and that it was good to have time to think before building.
- I am going to provide an hourglass in the next test to keep the whole thing analog.
- Also going to include a wider variety of words.
- One of my testers stated that it would be easier if the pieces were more clearly organized.



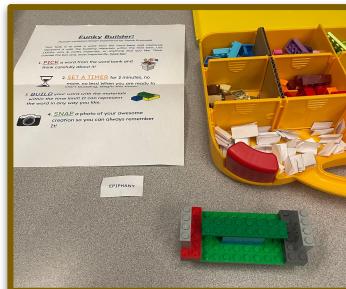
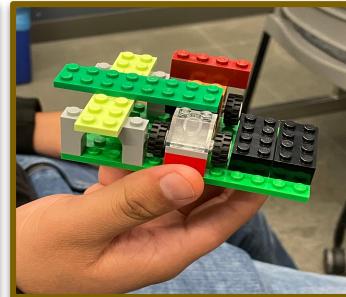
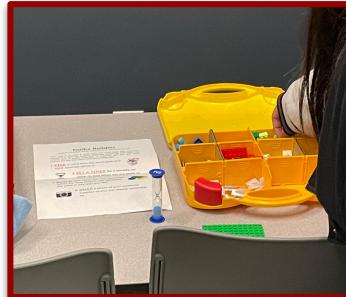
**Funky Builder**  
Human-centered design exercise by Jacob Grunwald

1. **PICK** a word from the word bank and think carefully about it!
2. **SET A TIMER** for 2 minutes, no more, no less! When you are ready to start building, begin the timer.
3. **BUILD** your word with the materials within the time limit! It can represent the word in any way you like.
4. **SNAP** a photo of your awesome creation so you can always remember it!



# Final Prototype and Testing

- Focus on making the overall experience as streamlined as possible.
- Improved instruction sheet, sorted pieces more clearly, printed words, and a physical hourglass.
- Set up in the break area of my workplace, it drew people in but not everyone wanted to participate.
- Some users had to think hard about their word.
- Everyone enjoyed the opportunity to get creative and use their hands to make something.
- Users were able to participate without my supervision.



# Thank you!

