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RESEARCHER | **ABOUT**

Gini Martinez is a former small business owner who conducted ux research to innovate new services for her clients before she had even heard of the concept. Her most recent experience has been conducting qualitative and quantitative foundational research in a startup environment. An award-winning public speaker with 20 years of client collaboration, Gini values curiosity, deep listening, and empathy to best understand users' and stakeholders' needs. Over the years she has developed her storytelling and presentation skills while designing professional development materials and facilitating group workshops. Gini brings big-picture strategic thinking and a love of cross-functional teamwork to any project. She is currently a master's candidate in Applied Cognitive Psychology for User Experience Research at Claremont Graduate University with plans to complete the program in May of 2023.





Why Conducting UX Research Is Essential for Product and Content Usability

By Gini Martinez

Exploratory UX research helps you to identify user needs to effectively develop and communicate usable solutions.

A product's usability, which is defined by the Interaction Design Foundation as, "a measure of how well a specific user in a specific context can use a product/design to achieve a defined goal effectively, efficiently and satisfactorily,"¹ is essential to a product's success. However, before product content can be designed to facilitate effective, efficient, and satisfactory user goal achievement, those goals need to be clearly defined and understood. That's where user experience (UX) research comes to play. UX research is the methodological process of gathering contextual feedback from users regarding their jobs to be done and any related pain points. UX researchers are curious to make discoveries about users and the goals they are having difficulty achieving, and the insights their work produces are an essential reference for any product team.

Getting to Know Your Audience

Imagine you're working on a product that helps connect people who like to pet dogs with people who own dogs and are happy to let strangers pet them. (In this example, both the people seeking dogs to pet and the people providing the dogs would be considered users, but for the purpose of this exercise, we will focus solely on the former.) Conducting qualitative exploratory UX research by interviewing a handful of people who like to pet dogs can help a product team to empathize with who they are and what they need in order to create the most valuable solution (product) for them and communicate that solution effectively.



Research can help us to better understand the goals of people seeking dogs to pet:

- *What motivates people to want to pet dogs?* Maybe the goal is to relieve anxiety, to study the pet-able-ness of different breeds, to lower blood pressure, or to have some fun.
- *What barriers do people encounter when trying to achieve their dog petting goals?* They might have trouble locating dogs nearby or with owners who don't mind sharing their dogs with strangers.
- *What about the context in which users are trying to achieve their goals?* Maybe people like to plan ahead to pet dogs versus needing to find dogs in real time.

Research can tell us more about the demographics of people who seek dogs to pet:

- Are young people more interested in petting dogs?
- Do potential dog petters live in apartments or single-family homes?
- Is it more common for full-time students or employees to seek out dogs to pet?

Research can shed light on the psychographics of people who seek dogs to pet:

- *What do they believe in?* Maybe they are parents who think it's important to socialize their children with dogs but aren't allowed to keep one in their apartment.
- *What do they value?* Maybe they prefer alternative means to treat high blood pressure versus taking medication.
- *What do they aspire to?* Maybe their goal is to one day meet a dog from each breed and check them off their bucket list.

Research can shed light on the behavior of people who seek dogs to pet:

- Are they likely to join community groups?
- Do potential dog petters follow a lot of animal content on social media?
- Is it common for them to keep a To Do list?

All of these elements not only help product development, but content development as well.

Informing User-Centered Design

If you're familiar with the double diamond² approach to design thinking, you know that it begins with divergent thinking, which is about being curious and keeping an open mind about if and how a problem exists in the world. Divergent thinking is the essence of discovery and discovery is the theme of exploratory UX research. With that in mind, you can see that UX research focuses deeply on the problem potential dog petters have. Insights gleaned during UX research can help to inform user-centered design decisions made about the product.

How insights gleaned during exploratory UX research can influence what a product for people who seek dogs to pet might look like:

- *Do many of them want to find dogs while they are on the go?* Maybe the solution needs to be a mobile application.
- *Are many potential dog petters parents?* Maybe the app needs a filter to find child-friendly dogs.
- *Is it important to track the breeds they've pet?* Maybe there needs to be a master list tab where they can check them off one at a time after petting a dog from each breed, like a birdwatching app.

What if all a product's users don't share the same characteristics?

They won't, and that's okay. Discovering trends in the goals, demographics, psychographics, and behaviors of a product's target market is the objective of exploratory UX research. Often a UX research team will capture the most important trends and turn them into a persona (or personas, if a product has multiple market segments).

A persona is a fictional user who reflects meaningful key attributes of a product's target market.³ Highlighting and organizing those

attributes succinctly onto a single page provides team members with a valuable reference to help guide and focus decisions made about the design and content of the product. The fictional user will usually have an alliterative name and include a photo to help make them memorable to all the product team members.

Know Your Personas



Here we have Excited Eliza, named so because she gets *very* excited whenever she meets a new dog. It's the highlight of her day and always soothes her anxiety. Eliza is a self-aware, organized, high-achieving first year college student who misses her family dog since moving away. The applications she uses multiple times daily include her calendar, a mindfulness app, and a popular photo sharing app. She values spending time outdoors with dogs and other people away from her academics but needs help making that happen.

Having essential insights about Excited Eliza at their fingertips will help everyone involved in creating the solution to her dog petting needs. UX research insights support the decision-making process for designers, information architects, developers, writers, and so on, enabling them to produce a user-centered product that facilitates effective, efficient, and satisfactory user goal achievement for people seeking dogs to pet.

“Not all of a product’s users will share the same characteristics, and that’s okay.”

UX Research Sets the Stage for Product Success

Getting UX research into the hands of product team members empowers them to create with the user in mind, which contributes to the product’s usability and ultimate success.

While user feedback should be systematically sought after and valued throughout a product’s lifespan to maximize its impact on product design and usability, it ideally predates the product’s existence in the form of exploratory UX research. After all, how can you know what solution to create if you don’t know exactly what the problem is or who has it? ■

References

1. Interaction Design Foundation. 2022. “Usability.” <https://bit.ly/3CNNRqb>.
2. Humble, Jeff. 2022. “What Is the Double Diamond Process? A Guide for People That Want to Make Sense of Design.” *The Fountain Institute*. <https://www.thefountaininstitute.com/blog/what-is-the-double-diamond-design-process>.
3. Laubheimer, Page. 2020. “3 Persona Types: Lightweight, Qualitative, and Statistical.” *Nielsen Norman Group*. <https://www.nngroup.com/articles/persona-types/>.



GINI MARTINEZ is an empathetic and curious mixed methods UX researcher with 20 years of client collaboration and workshop facilitation. She is currently a research consultant for a startup while pursuing her master’s in applied cognitive psychology for UX research at Claremont Graduate University.

CASE STUDY 1 | USABILITY TESTING RESEARCH

MHN USABILITY RESEARCH | **PROJECT SUMMARY**

For my master's level Interaction Design & Usability Testing class, I ran an unmoderated usability test of **Managed Health Network's mobile "Find a Provider" workflow** with concurrent think aloud.

I was the sole researcher on this project, which took place within the constraints of a 16-week class without any outside funding. I conducted all qualitative and quantitative research in person as well as remotely.

MHN USABILITY RESEARCH | **TEST PLAN**

Managed Health Network (MHN) offers (among other things) group behavioral health plans for mental health services and substance use disorder treatment. I am choosing the MHN [mobile website](#) "Find a Provider" workflow experience because I have experienced it as a member when I had to find mental health care for a loved one. From that experience, I believe it could benefit from a **single sample correlational usability research study** and subsequent design recommendations. If you or a loved one are in crisis, you may feel overcome with emotion, your heart may be racing, and you may be breathing fast. With these emotional and physiological responses in mind, the process of finding a mental health care provider needs to be simple and easy to navigate.

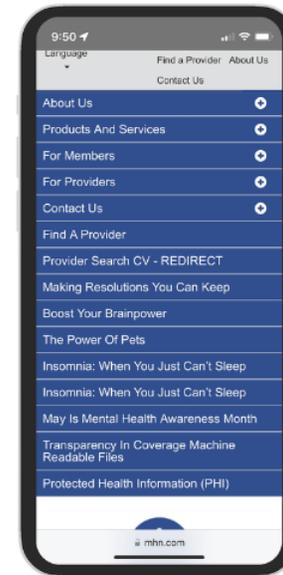
Background

WHO IS MHN?

Employers purchase **MHN mental healthcare** and **substance use treatment products** to provide services for their employees.

As stigma around mental health care eases and **more platforms for accessing resources** come to market, **employers have choices**.

The **usability of MHN services** can impact employers' continued desire to purchase these products for their employees over other options.



Background cont.

RESEARCH QUESTIONS

- Q. Are users able to complete the "Find a Provider" mobile workflow successfully?
- Q. Is the "Find a Provider" mobile workflow a positive experience for the user?
- Q. Is there a relationship between the website design's lack of responsiveness on a mobile device and the lack of positive experience a user has with the workflow?
- Q. Is there a relationship between lack of positive experience and lack of successful workflow completion?

HYPOTHESES

- H1 Users are not able to complete the "Find a Provider" workflow successfully.
- H2 The "Find a Provider" workflow is not a positive experience for users.
- H3 The website design's lack of responsiveness on a mobile device is positively correlated with the lack of positive experience a user has with the workflow.
- H4 Lack of positive experience and lack of workflow completion success will be positively correlated.

Methods

DESIGN & PROCEDURE

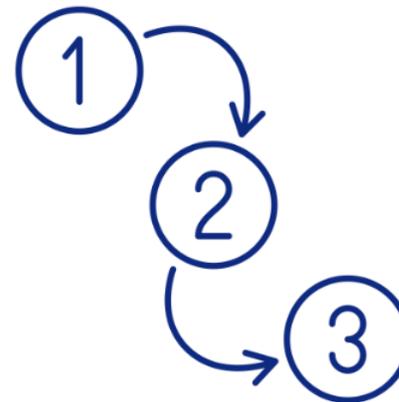
Summative Test of MHN's mobile "Find a Provider" workflow

Correlational, single sample

In-person or via **Zoom**

Quantitative & **Qualitative** data collected

Unmoderated live website test with **concurrent think aloud**



Methods cont.

FIND A PROVIDER WORKFLOW PROTOTYPE



Sampling



PARTICIPANTS

Convenience sample ages 18+

M : F = **4 : 1**

Ages: **21, 21, 21, 54, 64**



RESEARCH GOALS

QUESTIONS

1. *Are users able to complete the “Find a Provider” mobile workflow successfully?*
2. *Is the “Find a Provider” mobile workflow a positive experience for the user?*
3. *Is there a relationship between the website design’s lack of responsiveness on a mobile device and the lack of positive experience a user has with the workflow?*
4. *Is there a relationship between lack of positive experience and lack of successful workflow completion?*

In order for the business to meet its goals, health plan members need to be able to access their benefits and find appropriate providers easily, which requires successfully completing the “Find a Provider” workflow. In other words, MHN **users need to be able to use the MHN mobile website to effectively, efficiently, and satisfactorily achieve their goal of finding a behavioral healthcare provider.** Keeping in mind the behavioral health focus of the website, providing an experience that is positive should correlate positively with successfully completing the workflow.

The goals of this **summative usability testing** research project are to:

- A. Evaluate how many users can successfully complete the “Find a Provider” workflow
- B. Evaluate users’ perception of their success
- C. Evaluate how many interactions users have with the workflow interface
- D. Evaluate how frequently users express the workflow as a positive experience
- E. Evaluate how users rate the ease of the workflow
- F. Evaluate the relationship between website responsiveness and ease of workflow
- G. Evaluate the relationship between a positive experience and successful workflow completion

HYPOTHESES

- **H1:** Users are not able to complete the “Find a Provider” workflow successfully.
- **H2:** The “Find a Provider” workflow is not a positive experience for users.
- **H3:** The website design’s lack of responsiveness on a mobile device is positively correlated with the lack of positive experience a user has with the workflow.
- **H4:** Lack of positive experience and lack of workflow completion success will be positively correlated.

Hypothesized Problems Users Will Encounter

1. MHN web design violates Gestalt principles and cognitive biases best practices
2. MHN web design is not responsive on mobile device

Metrics

1. “Find a Provider” workflow successful completion by users
 - a. Metric: **Issues-based rating** [0–Success, 1–Success with Uncertainty, 3–Success with Errors, 4–Technical Fail, 5– Fail]
 - b. Metric: **Efficiency** [compare ideal # of times (14) they should click/touch/interact versus actually click/touch/interact with a page]
 - c. Metric: **Perception** of successful task completion [7–point Likert]
2. “Find a Provider” workflow positive experience for users
 - a. Metric: **Predicted Ease** Score [7–point Likert]
 - b. Metric: **SEQ** (Single Ease Question) [7–point Likert]
 - c. Metric: **Behavioral/Physiological** [Frequency of negative/frustrated/confused facial and verbal expressions captured via video recording]

DATA

The bulk of the data collected will be **quantitative**, however I will also collect some **qualitative** data.

PARTICIPANTS

Individuals age 18+

SCREENER

I will screen participants prior to bringing them into the lab with a short questionnaire.

QUESTIONNAIRE

- Have you ever had to seek medical or mental health care for a loved one or close friend in an urgent situation?
- Have you ever had to seek medical or mental health care for yourself in an urgent situation?

SAMPLING

Because this is my final project for Interaction Design & Usability Testing class, I will be using convenience sampling and recruiting from friends, family, and classmates.

SAMPLE SIZE CALCULATION

	\$\$\$\$	\$\$
HYPOTHESIS 1	Adjusted Wald Confidence Interval: Confidence Level = 95% $\hat{p} = .50$	Adjusted Wald Confidence Interval: Confidence Level = 95% $\hat{p} = .50$

	Critical Difference = 10% Estimated $n = 93$ Confidence Interval: Confidence Level = 95% Critical Difference = 2.4 Actual Obtained $n = 5$	Critical Difference = 25% Estimated $n = 12$ Confidence Interval: Confidence Level = 95% Critical Difference = 4.0 Actual Obtained $n = 5$
HYPOTHESIS 2	Confidence Interval: Confidence Level = 95% Critical Difference = 2.4 Actual Obtained $n = 5$	Confidence Interval: Confidence Level = 95% Critical Difference = 4.0 Actual Obtained $n = 5$
HYPOTHESIS 4	Difference of two means: Actual Obtained $n = 5$	Difference of two means: Actual Obtained $n = 5$

Seeing as I have not previously conducted a study for the efficiency metric as a benchmark against which to test, I do not know the expected proportion of users who will meet my efficiency metric. Therefore, I designated that proportion to equal .05 (essentially a coin toss).

Due to the mental health and substance use treatment center focus of this workflow, I want to increase my confidence that I will not commit a Type I Error, and therefore set my alpha equal to .05 ($z = 1.96$).

Again, due to the mental health and substance use treatment center focus of this workflow, I think it is important to detect a small difference between expected and observed outcomes, therefore I set the **ideal critical difference value to 10%**. Noting the large sample size required to detect this difference and the increase in cost, I also calculated a sample for a **make it work critical difference value of 25%**.

My calculations can be found [here](#).

DESIGN & PROCEDURES

HYPOTHESIS 1

Users are not able to complete the “Find a Provider” workflow successfully.

DESIGN

Correlational, single sample

TASK DESCRIPTION

Unmoderated prototype test of MHN mobile “Find a Provider” workflow with concurrent think aloud.

HYPOTHESIS 2

The “Find a Provider” workflow is not a positive experience for the user.

DESIGN

Correlational, single sample

TASK DESCRIPTION

Unmoderated prototype test of MHN mobile “Find a Provider” workflow with concurrent think aloud.

HYPOTHESIS 3

The website design’s lack of responsiveness on a mobile device is correlated with the lack of positive experience a user has with the workflow.

DESIGN

Correlational, single sample

TASK DESCRIPTION

Unmoderated prototype test of MHN mobile “Find a Provider” workflow with concurrent think aloud.

HYPOTHESIS 4

Lack of positive experience and lack of workflow completion success will be correlated.

DESIGN

Correlational, single sample

TASK DESCRIPTION

Unmoderated prototype test of MHN mobile “Find a Provider” workflow with concurrent think aloud.

GENERAL PROCEDURES

INTRODUCTION

The introduction script with verbal agreements can be found [here](#).

The NDA can be found [here](#).

The informed consent form with time commitment can be found [here](#).

During the introduction I will give the participant a letter-sized envelope with a fake MHN membership card inside. I will not tell the participant what is in the envelope, only that it will be required to perform the necessary tasks and they will be told when to use it at the appropriate time. The goal is to try and simulate a

real-world scenario in which a MHN user will need to retrieve their membership card from their wallet or purse when trying to complete the “Find a Provider” workflow on the mobile website.

PRE-TASK QUESTIONS

Item 1: “Overall, how difficult or easy do you expect this task to be?” [7-point Likert scale, very difficult–very easy]

SETTING UP THE TASK

Like I said, I’d like you to “think aloud” as much as possible. By that I mean that I’d like you to speak your thoughts as you move through the task. The website we are testing offers behavioral health plans for mental health services and substance use disorder treatment. The pages you will be testing are designed to help the health plan members find a provider for themselves or a loved one.

Try to remember a time when you had to seek medical or mental health care for a loved one or close friend in an urgent situation. Start here on this page of the website and think aloud as you find a provider for them.

POST-TASK QUESTIONS

Item 1: “Overall, how unsuccessful or successful do you think you were at completing this task?” [7-point Likert scale, very unsuccessful–very successful]

Item 2: “Overall, how difficult or easy did you find this task?” [7-point Likert scale, extremely difficult–extremely easy]

DEBRIEF

Debrief resources can be found [here](#).

ANALYSIS

- **Issues-based metric:**
Adjusted Wald proportion analysis 95% CI
- **Efficiency metric:**
Interaction frequency, proportion analysis 95% CI
- **Perceived Success metric:**
Mean score, proportion analysis 95% CI
- **Predicted Ease & SEQ metrics:**
Mean difference paired samples t-test
- **Behavioral/Physiological metric:**
Frequency, proportion analysis 95% CI
- **Website Responsiveness <-> Ease metrics:**
Pearson's r correlation test
- **Success <-> Positive Experience metrics:**
Pearson's r correlation test

DELIVERABLES

- Interactive Prototype
- Detailed Findings Report
- Summary Presentation & Slide Deck

TIMELINE

MILESTONE	STATUS	DUE DATE	NOTES
Create Test Plan	Completed ▾	10/28/2022	
Create Prototype	Completed ▾	11/04/2022	I created a prototype in order to learn new skills in Figma. Ultimately, I used the live mobile website for testing in order to simulate as close to a real-world experience as possible.
Collect Data	Completed ▾	11/18/2022	
Submit Report	Completed ▾	12/02/2022	
Present Findings	Completed ▾	12/09/2022	

BUDGET

ITEM	EXPENSE	NOTES
30-min Remote Unmoderated Live Mobile Website Usability Test with Concurrent Think Aloud & Analysis of Data for 13 Participants	\$15k - \$35k	Source: measuringu.com
30-min Unmoderated Live Mobile Website Usability Test with Concurrent Think Aloud & Analysis of Data for 5 Convenience Sample Participants	\$0	

MHN USABILITY RESEARCH | **TEST REPORT**

EXECUTIVE SUMMARY

- Based on the current usability test, the **ceiling success rate** for MHN members navigating the “Find a Provider” workflow **is 64%**.
- I recommend that MHN **incorporate simple, inexpensive redesigns based on users’ feedback**, such as a modal panel with an annotated example insurance card, which could have a potentially significant impact on the workflow success rate and proportion of uncertainty.
- I recommend that MHN **test redesign elements against current success rate data** to measure increase in success and decrease in uncertainty.

BACKGROUND & RESEARCH QUESTIONS

Managed Health Network (MHN) offers group behavioral health plans for employers to provide mental health services and substance use disorder treatment to their employees. Members can access MHN via desktop and [mobile](#) websites. Having experienced the “Find a Provider” workflow as a member, I believe it could benefit from a **single sample correlational summative usability research study** and subsequent design recommendations.

RESEARCH QUESTIONS

1. *Are users able to complete the “Find a Provider” mobile workflow successfully?*
 - a. **H1:** Users are not able to complete the “Find a Provider” workflow successfully (get to the screen with map and list of providers).
2. *Is the “Find a Provider” mobile workflow a positive experience for users?*
 - a. **H2:** The “Find a Provider” workflow is not a positive experience for the user.
3. *Is there a relationship between the website design’s lack of responsiveness on a mobile device and the lack of positive experience a user has with the workflow?*

- a. **H3:** The website design's lack of responsiveness on a mobile device is positively correlated with the lack of positive experience a user has with the workflow.
- 4. *Is there a relationship between lack of positive experience and lack of successful workflow completion?*
 - a. **H4:** Lack of positive experience and lack of workflow completion success will be positively correlated.

METHODS

PARTICIPANT SCREENING

Convenience sample of individuals 18+

SAMPLE

n = 5

Ages: 21 - 64

Male : Female = 4 : 1

METHOD

Unmoderated live website test of MHN mobile "Find a Provider" workflow with concurrent think aloud administered in-person or via Zoom.

DATA COLLECTED

Qualitative & Quantitative

FINDINGS

Results

2 METRICS*

H1

Issues-based rating

[Success - Success with Uncertainty - Success with Errors - Technical Failure - Failure]

Success Rate = 20%

Technical Fail Rate = 20%

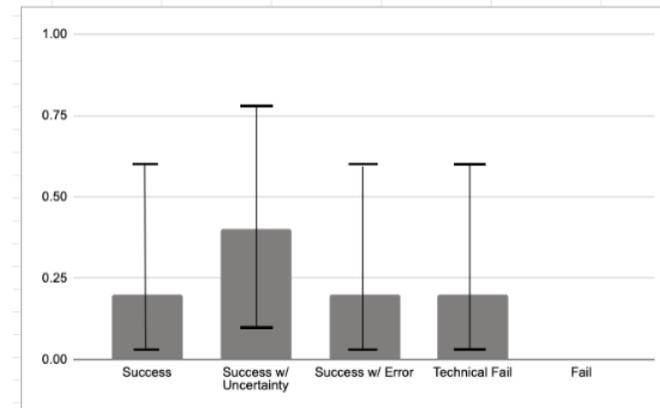
95% CI = 2-64%

Interaction Efficiency

[# of times users click/touch/zoom/pinch/interact with a page]

Mean # of Interactions = 64

95% CI = 4 - 124 interactions



*Convenience Sample - n does reach estimated size for statistical power - Skews male

Results cont.

UNCERTAINTY



Rich: "I'm gonna put somewhat successful because I got a list, but **I have no idea whether the list that I got is the list that I need to have**, according to my information. I'm not sure, until I call someone and they say, 'Oh, yes, we accept your insurance.'"



Results cont.

2 METRICS

H2 Uncertainty
[Frequency of Uncertain facial and verbal expressions]
Mean # of Uncertain Expressions = 13
95% CI = 5 - 20 Expressions

H4 Issues-based rating correlated with Uncertainty
Pearson's r = $-.88$ (0 means no association)
More uncertainty was associated with less success.

 **Note:** "I got results but **I'm still not even confident**...all I know is I typed my address right."



Results cont.



QUALITATIVE COMMENTS

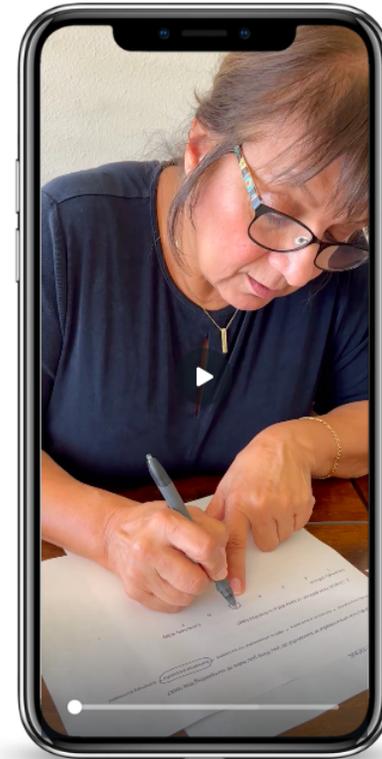
"I found it **extremely difficult**. I don't think I'm being hyperbolic."

"I felt a little nervous about was **the print was small**, so...I thought **I was going to skip a part** and so I had to go back and forth [swipe the screen laterally]."

"...all the different choices and all the different possibilities, I'm just **not sure whether I clicked the right buttons**. I just started saying this makes the most sense. I just gotta go with something and **hopefully I found the right one**."

"**Finding where the information**—that the website is asking for—**is on the card [was hard]**."

"**I didn't know if** I should click on "**find a provider**" or "**for providers**" because it sounds like it's for [finding] providers."



HYPOTHESIS 1

- Issues-based rating
[Success - Success with Uncertainty - Success with Errors - Technical Fail - Fail]
Success Rate = 20%
Technical Fail Rate = 20%
Adjusted Wald 95% CI = 2-64%
! Potential maximum success rate of 64%
- Interaction Efficiency
[# of times users click/touch/zoom/pinch/interact with a page]
Mean # of Interactions = 64
95% CI = 4 - 124 interactions
! Ceiling of 124 interactions misses the mark of the ideal 14 interactions
- Perceived Success
[7-point Likert scale]
Mean Score = 3.4
95% CI = 1.5 - 5.3
! Potential perceived low success score of 1.5

HYPOTHESIS 2

- Uncertainty
[Frequency of Uncertain facial and verbal expressions]
Mean # of Uncertain Expressions = 13
95% CI = 5 - 20 Expressions
! Potential minimum of 5 uncertain expressions
- Ease
[Predicted Ease Score correlated with SEQ]

Mean difference = .4 (not statistically significant)

HYPOTHESIS 3

- Website Responsiveness & Ease

[Interactions due to lack of responsiveness correlated with SEQ]

Pearson's $r = .51$ (not statistically significant)

! Users age 21 had 0 interactions due to lack of responsiveness, while users age 54 and 64 had a mean of 63.5 interactions due to lack of responsiveness, which likely canceled each other out.

HYPOTHESIS 4

- Success & Positive Experience

[Issues-based rating correlated with Uncertainty]

Pearson's $r = -.88$ (0 means no association)

! More uncertainty was associated with less success.

All study data can be found [here](#).

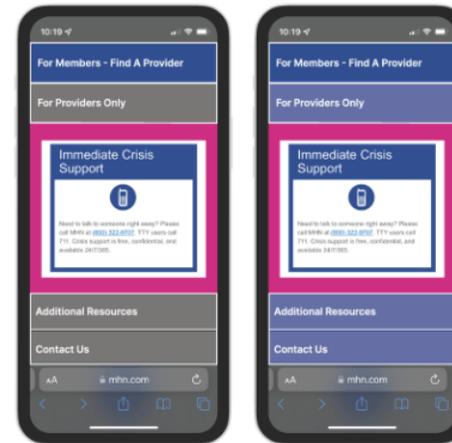
LIMITATIONS

- Convenience sample
- Sample does not reach estimated size for statistical power
- Sample skews male

Recommendations

HOME PAGE

-  **Olivia:** "...I noticed on **the first screen it was too much**. I was like, Oh, I'm not gonna read all that."
-  **Nate:** "...I felt like all my options were **stacked on top of each other in a fairly overwhelming way...**"
-  **Willy:** "When I first opened [the web page] I was like, **'Whoa. There's a lot happening here.'** ...**all these other little bars and I was like, 'I don't know where I am. This is a lot.'** Just all the blue bars....if you can...kind of separate them...make them not all the same. That might be helpful. ...it was just a whole bunch of blue bars and they're all clumped together. **Even a minor shift in color might do the trick.**"



Option 1

Option 2

Recommendations cont.

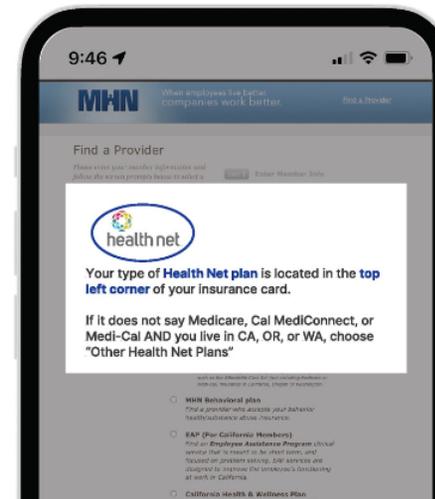
MODAL PANEL



Lucas: "...if there could be **a graphic or example card that could point to where things are.** That would have been helpful for me."



Nate: "if there was some sort of marker...if it could point out something on my card that would have made it very easy for me to recognize what on my card tells me what I have."



Next Steps



THE BOTTOM LINE

Employers have increasingly more options to provide mental health services for their employees.

Based on the current usability test, the ceiling for MHN members to successfully complete the Find a Provider workflow is 64%.

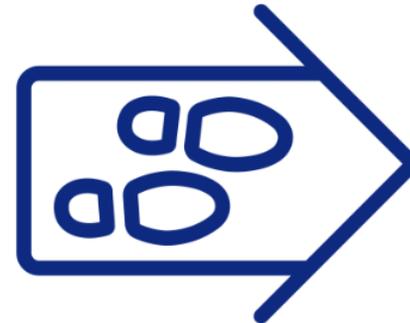
How satisfied is MHN with a potential maximum success rate of 64%?



FUTURE RESEARCH

Incorporating simple, inexpensive redesigns could have a potentially significant impact on workflow success rate.

A redesign should be tested against current success rates.



RECOMMENDATIONS BASED ON USER FEEDBACK

- Redesign homepage to minimize overwhelm and uncertainty.
- Add modal panel to workflow with an annotated example insurance card to improve success rate and reduce proportion of uncertainty.

MHN USABILITY RESEARCH | **EXECUTIVE SUMMARY PRESENTATION SLIDE DECK**

Interactive presentation slide deck can be found [here](#).

MHN USABILITY RESEARCH | **WHAT I LEARNED**

What worked well?	<ul style="list-style-type: none">● Results validated several of my hypotheses, despite having to conduct 3 tests remotely and my sample being underpowered.
What challenges did I encounter?	<ul style="list-style-type: none">● Due to the time and budget constraints of a class assignment, I was unable to recruit enough participants to reach statistical power.● Again, due to constraints, I had to conduct some tests in person and others remotely via Zoom.
What would I do differently and/or additionally?	<ul style="list-style-type: none">● Due to the sensitivity, importance, and high risk (to the business) of the “Find a Provider” workflow, I would like to recruit closer to my estimated sample size of 12 participants.● I would like to conduct follow-up testing after implementing the suggested design change strategies.

CASE STUDY 2 | FOUNDATIONAL RESEARCH

iOS EMOJI RESEARCH | **PROJECT SUMMARY**

For my master's level UX Strategy & Design class, I explored the problem of identifying and differentiating between small emojis on the iPhone after developing presbyopia (age-related farsightedness).

I was the sole researcher on this project, which took place within the constraints of a 16-week class without any outside funding. I conducted all qualitative and quantitative research remotely. While I utilized many free resources, I also paid for some out of my own pocket.

WHAT I KNEW:

1. Since developing age-related farsightedness (but not regularly needing reading glasses to read text) I had trouble seeing and differentiating between emojis in the iOS menu on my phone.
2. One other friend expressed experiencing this same problem.
3. 80% of North Americans have age-related farsightedness.
4. iOS emojis are 3cm^2 (on the iPhone 13 mini).

WHAT I WANTED TO LEARN:

1. Do iOS users with farsightedness, who like to utilize emojis in their social media communications, have trouble seeing and differentiating between emojis in the text menu?
2. How prevalent is this in the population?
3. What are the attitudes and behaviors of users that can help inform next steps toward a solution

EMOJI RESEARCH | HIGH-LEVEL SUMMARY

DISCOVERY

- **EXPLORED** -> the problem that **80%** of North Americans experience age-related farsightedness and emojis are 3cm²
- **INTERVIEWED** -> **3** users to find out if and how they experienced this problem.*
- **ANALYZED** -> **6** current solutions to this problem.
- **DEVELOPED** -> a plan to **evaluate attitudes** users have toward a potential solution concept.
- **CONDUCTED** -> quantitative survey research with **35** participants to find out how prevalent this problem is in the larger population and how willing users who experience this problem are to download a separate app solution.**

INSIGHTS

- **DISCOVERED** -> that female and male iPhone users age 40+ in the U.S. **who text and are highly engaged on social media** in their personal and professional lives find it hard to see small images
- **CAPTURED** -> users' comments:
"Small things are hard."
"Does that mean what I think it means?"
"I have a terrible time distinguishing between pointing up and giving someone the finger. 🙄"
- **CONCLUDED** -> **0** of the existing solutions solve the problem as part of their value proposition, **60%** have been neglected since 2016, and **30%** seamlessly integrate with iMessage
- **FOUND** -> a **positive relationship** between users who find small emojis hard to see and users who are willing to download a separate app solution.
- **RECOMMENDED** -> create and test a prototype, **investigate the extreme users** who are most enthusiastic about downloading a separate app

*on an iPhone 13 Mini

**Small, convenience sample

iOS EMOJI RESEARCH | **DISCOVERY PROCESS**

In order to find out if and how this emoji problem exists in the world for other people, I needed to be clear about what I wanted to explore, from the user's perspective. First, I developed a **radical problem statement**.

I needed some additional provisional assumptions—regarding users' demographics, psychographics, behaviors, needs, and goals—to test, so I created a **provisional persona**.

It was important to identify the characteristics of participants I would need for my discovery research, so utilizing my provisional persona, I identified a **target market**.

With a problem statement, provisional persona, and target market identified, I was able to develop the unique benefits I hoped to provide users into a **value proposition**.

PROBLEM STATEMENT

Today, when people experiencing presbyopia (age-related farsightedness) try to incorporate emojis into their text and social media posts, via their mobile device, they struggle to discern the tiny images and are left to abandon the endeavor so as to not choose the wrong image and experience embarrassment.

This is unacceptable because it precludes nearly 80% of the population (in North America) from using emojis, which are a fun and essential part of modern digital communication.

I envision a world where everyone can quickly and easily recognize and utilize emojis on their mobile devices.

I am bringing this world about through a mobile application that seamlessly integrates with iMessage on any iOS mobile device.

PROVISIONAL ASSUMPTIONS

DESCRIPTION

AGE	40+
GENDER	Men and women
EDUCATION	Some college or more
GEOGRAPHY	United States
OCCUPATION	Professionals
HOUSEHOLD TYPE	Married with children
HOUSEHOLD INCOME	75k+

BEHAVIORS

LIFESTYLE	Busy
ROUTINES	<ul style="list-style-type: none">• Grocery shops every Sunday• Gets takeout every Thursday
ACTIVITIES	<ul style="list-style-type: none">• Volunteers as high school debate judge• Likes to hike new trail once/mo
TECHNOLOGY	iOS devices
SOCIAL MEDIA	<ul style="list-style-type: none">• Text• Tweet

	<ul style="list-style-type: none"> • Slack • Discord
SHOPPING BRANDS	<ul style="list-style-type: none"> • Trader Joe's • Nike • Amazon
ENGAGEMENT LEVEL	High
HOBBIES & INTERESTS	<ul style="list-style-type: none"> • NCAA sports • Binge watches entire season of Station Eleven after its release
NEEDS & GOALS	
NEEDS	<ul style="list-style-type: none"> • To feel they're expressing all facets of themselves • To not feel like they're missing out on parts of a conversation
ATTITUDES	<ul style="list-style-type: none"> • Thinks emoticons/GIFs/memes enhance digital comms • Appreciates efficient modes of comm
PAIN POINTS	<ul style="list-style-type: none"> • Unable to identify an appropriate emoticon quickly and easily • Unable to feel confident about incorporating emoticons into digital comms via mobile devices
CHALLENGES	<ul style="list-style-type: none"> • Can't see small emoticons • Can't differentiate between different similar emoticons
EXPECTATIONS	<ul style="list-style-type: none"> • Quick • Easy • Helpful
JOBS TO BE DONE	Be more expressive in their digital comms on their iOS device

EMOTIONAL STATE	<ul style="list-style-type: none"> • Frustrated • Feels left out • Stifled
BLOCKERS & OBJECTIONS	Does not want to download a separate app solution

TARGET MARKET

People who experience presbyopia (age-related farsightedness) and use an iOS mobile device.

VALUE PROPOSITION

A mobile application that empowers people experiencing age-related farsightedness to easily recognize and confidently utilize emojis in iMessage on their iOS device

EXPLORATORY QUALITATIVE RESEARCH

Once I had a value proposition, I developed an **exploratory qualitative research** plan to gain greater insights into if and how this emoji problem exists in the world for participants.

RESEARCH PLAN

RECRUITING PARTICIPANTS	Friends & family
SAMPLE SIZE	3-5
METHODS/TOOLS	In-person & Zoom
SCREENING	<ul style="list-style-type: none"> • 40+ • Wears corrective lenses for farsightedness • High engagement in digital social communications

ASSUMPTIONS	<ul style="list-style-type: none"> ● Difficulty seeing emojis ● Difficulty differentiating between similar emojis ● Do not feel confident using emojis outside of frequently used ● Want easy, convenient, helpful solution
DEMOGRAPHICS COLLECTED	<ul style="list-style-type: none"> ● Age ● Family ● Gender ● Occupation
SAMPLE QUESTIONS	<ol style="list-style-type: none"> 1. What types of social media do you use? 2. How do you feel about using emojis in digital communications (texts or social media)? [Can you elaborate on that?] 3. How would you characterize your feelings about using them? 4. Can you talk a little bit more about that in your personal communications? 5. Which emojis do you typically use in a digital communication? 6. Why do you use those emojis? 7. Can you describe any challenges you've faced when trying to incorporate emojis into your digital communications? [Can you elaborate on that?] 8. Is that the only challenge you've encountered? 9. Have you ever had trouble seeing the emojis? 10. If you have trouble seeing the emoji, does that impact your use of emojis in any way?

-
11. How have you been able to overcome these challenges?
 12. Do you always have your readers with you?
 13. If there was an app that would make it easier to incorporate emojis into your digital communications, what would you think?
-

SNAPSHOT OF EXPLORATORY RESEARCH RESPONSES

EMOJI RESEARCH EXPLORATORY RESEARCH INTERVIEWS MATRIX			
PARTICIPANT INFO	INTERVIEW 1	INTERVIEW 2	INTERVIEW 3
Name / Date / Method	Rich - 2/17/22 in person	Courtney - 2/20/22 via zoom	Robin - 2/20/22 via zoom
Q. Have you ever had trouble seeing the emojis?	No, because I wear readers.	I would say maybe to the extent that I don't understand some of the nuances between some of the faces and would have to study them to know. Yeah, I would say that I probably have trouble seeing some of them because they...definitely some of the nuances don't jump to my head that I understand them enough to differentiate them without really looking at them.	Sometimes they're so tiny, it's hard, right? Like, there's a lot of detail, so they're complicated and, like, there's one...there's a lady dancing and I could never really understand what was going on with that one and then somebody brought it up, "Oh that's a lady dancing," and I'm like, "Oh!" I just thought it was a lady in a dress who was walking really fast. I guess that is dancing. Yeah, and again, I...small things are sometimes hard...how much can I pull my phone back so I can actually see and focus in on something? It's interesting too because when you're writing a message and you put the emoji in a text with the written stuff, it's tiny, but if you send it separately, it's bigger. So sometimes I do that for my mom. I make them separate so I know that they're big and she can see them.
Q. If you have trouble seeing the emoji, does that impact your use of emojis in any way?			They have to be cute, if I'm trying to do something funny...it's better if you can see them better, like sometimes if you want to send something and there's like a piggie...you can get a picture of a pig or you can just get the little face of the pig, so it all depends on what you're trying to do. Sometimes it's easier to see just the face of the pig, cuter, a little more simplified and you can see a little better. So, yeah, especially now that people use emojis a lot and they're getting more complicated and

EMOJI RESEARCH EXPLORATORY RESEARCH INTERVIEWS MATRIX			
PARTICIPANT INFO	INTERVIEW 1	INTERVIEW 2	INTERVIEW 3
Name / Date / Method	Rich - 2/17/22 in person	Courtney - 2/20/22 via zoom	Robin - 2/20/22 via zoom
Q. If there was an app that would make it easier to incorporate emojis into your digital communications, what would you think?	I guess, yeah. Sure. Depends on how it's set up, if it's easy to use. I would consider using it. It doesn't weigh on me that I don't use emojis, it's just every once in a while I think about using one and then I decide not to because I don't know what it means...or I'm not sure it means what I'm intending it to mean. It's no big deal, I just use words. If it's easy...quick and easy, sure.	That would be awesome!	I think that would be cool...if it could help you search for them and you could see them bigger, that would be helpful
CLOSING			
Thank you so much for your time. You provided us with a lot of helpful insights and we truly value your time!			
ADDITIONAL INSIGHTS			
	humor, fun, express a feeling	silly, emotion, work	fun, cute, emotion, easy
	Did I offend? Received in way was intended?	easily-findable, easy one-word answer	a lot of detail, complicated, if too complex, can be misinterpreted, they're so tiny, small things are hard, how far can I pull my phone back?
		concerned, overthink, offend, don't know the difference, Am I outdated?	like to search, make whole message out of emojis, it's a puzzle on the other end
		Gave up on those, They don't exist to me, does not enjoy searching	
ANALYSIS SECTION			
Did the participant validate assumption Difficulty seeing small images (use app)	NO	YES	YES

The exploratory qualitative research validated my assumptions about users' experiences, desires, and goals. It also provided new insights into users' motivations for using emojis (connecting with family, professional norms), obstacles to wearing reading glasses (vanity), and revealed anxiety felt over choosing the wrong emoji, whether due to their inability to accurately discern what it is or not knowing if it had an alternative meaning.

EMOJI RESEARCH | EXPLORATORY QUALITATIVE RESEARCH SUMMARY



The Problem

80% of North Americans suffer from age-related

3cm² Emojis are small, often complex images

Current Workaround

Sends emoji separately so it's bigger

In Their Words

"Am I outdated?"

"I gave up on those."

"Small things are hard."

"What if I choose the wrong one?"

"Does that mean what I think it means?"

Assumptions Validated*

Difficulty seeing small images
Can't differentiate between similar emojis
Do not feel confident
Want easy, convenient, helpful

Themes Discovered

Fun **10x** – Family **10x** – Misinterpret **8x** – Emotion **6x**

New Insights

VANITY creates a challenge
Values **FAMILY** connections
Emojis are **ENCOURAGED** at work
Misinterpretation **ANXIETY**
Ease of use / deep search **PARADOX**

Next Steps

- ? Does this problem exist in larger population?
- ? Common vs. Urban Dictionary Uses need?
- ? Does a formal solution exist?

*n = 3, convenience sample

I recommended to research if a solution to these problems already exists, explore if this problem exists more prevalently in the greater population, and consider a possible need for a common uses vs. Urban Dictionary feature. Ultimately, I decided to put a pin in the last recommendation because it was outside the scope of discovery and the problem space.

Next, I used the results of the exploratory qualitative research in hand to research solutions in the marketplace and conducted a **competitive analysis** of direct and indirect competitors to inform next steps in the discovery process.

iOS EMOJI RESEARCH | **COMPETITIVE ANALYSIS**

I consulted Mobileaction, Dun and Bradstreet, Apollo, Crunchbase, and the App Store to gather existing solutions and analyze competitor strengths, weaknesses, opportunities, and threats. I downloaded every iOS solution I identified to my iPhone and tried them out myself to get a feel for how they worked and to better understand features and bugs referenced in user reviews.

SNAPSHOT OF COMPETITIVE ANALYSIS FINDINGS

Emoji Research Competitive Analysis Matrix										
DIRECT COMPETITORS	VALUE PROPOSITION	YEAR FOUNDED	REVENUE STREAMS	REVENUE (as of FEB 2022)	COST	LAST UPDATED	DOWNLOADS (as of FEB 2022)	IOS RANKING (CATEGORY)	VISIBILITY SCORE (SCALE 1-100)	COMPETITIVE ADVANTAGE and/or KEY
Big Emoji Keyboard- Stickers for Messages, Texting & Facebook	BIG emoji stickers for your texts, Facebook, WhatsApp, Kick, Snapchat, and a ton of other messaging apps.	2011	in-app purchases	\$0 - 2/22*	FREE	2016	0	not listed	62	
Adult Emoji Animated Emojis - DESIGNED for iPad	You can always find an emoji to express your mind in this app.	2016	ads	\$0	FREE	2018	0	not listed (utilities)	63	
Emoticons Keyboard Pro - Adult Emoji for Texting	You can always find an emoji to express your mind in this app.	2016	paid app	\$412	\$4.99	2016	6,000	6 (shopping)	44	
Adult Emoji Pro & Animated Emoticons for Texting - DESIGNED for iPad	With this app, texting to friends becomes much more interesting! No limits & No ads!	2016	paid app	\$0	\$6.99	2017	503	93 (utilities)	36	
Adult Emojis Stickers Pack for Naughty Couples	This app provides tons of adult flirty emojis for texting directly from iMessage.	2016	paid app	not available	\$0.99	2016	not available	not available	not available	Can be incorporated into iMessage app in iOS.
Super Big Emojis	This sticker pack has the biggest emojis out there.	2017	not determined	not available	FREE	2017	0	not listed	43	Can be incorporated into iMessage app in iOS.
INDIRECT COMPETITORS										
Big Emoji Stickers For Whatsapp WASTickerapps	Big Emoji Stickers For WhatsApp is a new feature by WhatsApp that makes adding stickers to chat easier with WASTickerapps	2019	ads	\$0	FREE	2021	0	n/a	42	

Emoji Research | Competitive Analysis Matrix

DIRECT COMPETITORS	HEURISTIC EVALUATION	AVG CUSTOMER RATING	CUSTOMER REVIEWS	GENERAL NOTES or RECENT NEWS	NOTES to SELF or TEAM	SWOT ANALYSIS from COMPETITOR'S PERSPECTIVE
Big Emoji Keyboard- Stickers for Messages, Texting & Facebook	Grade C - Multiple steps, time consuming	4.6	Rating 5/5 stars - Jackie3265 - 02/15/2017 - Super App - Love this app it's so easy to use it has the keyboard so you can do everything in one place without needing to use other apps.		employees, revenue not exact - aggregated from Dun and Bradstreet & Anville. E-mail: info@crunchbase.com	https://docs.google.com/document/d/1RWYnFDf4p2JokQvCrdXE-XFKgtmPL2ivkTBEOGvUMU/edit?usp=sharing
Adult Emoji Animated Emojis - DESIGNED for iPad	Grade C - Multiple steps, time consuming	4.3	Adult Emoji Animated Emojis - Rating 4/5 stars - jennross76 - 10/06/2020 - Almost five - This is a fantastic app and I really enjoy using the plentiful choices of emojis that are offered.		Ganger Cai not found on Crunchbase or other sites. Their website is said to be powered by Official	https://docs.google.com/document/d/1F3Y03GGSy8AJLEb2pJpsmDwoQqd0065ch7z8-3dk/edit
Emoticons Keyboard Pro - Adult Emoji for Texting	Grade C - Multiple steps, time consuming	3.8	Emoticons Keyboard Pro - Adult Emoji for Texting - Rating 2/5 stars - shortstack77788 - 02/18/2022 - Paid for app. Definitely NOT 200% Emojis - If you pay for the app you only			https://docs.google.com/document/d/1tAiwJDspW6sHTefysAOIGa4bDir0BBLXLMHrTqyDrMs/edit
Adult Emoji Pro & Animated Emoticons for Texting - DESIGNED for iPad	Grade C - Multiple steps, time consuming	3.8	Adult Emoji Pro & Animated Emoticons for Texting - Rating 4/5 stars - NoCoVGal - 06/28/2021 - Good variety but slow - There's a lot to choose from on adult emoji apps on			https://docs.google.com/document/d/1Bx2tS6tfq9ywjvVWVFI-jGKwUEX6VPh9nPX38quQd0/edit
Adult Emojis Stickers Pack for Naughty Couples	Grade A - Simple to integrate, easy to use	2.7	NONE AVAILABLE			https://docs.google.com/document/d/1IESpUvan87zJ35q5ixHJM9YKHgqtkZ8v7GvHhHF0Ms/edit
Super Big Emojis	Grade A - Simple to integrate, easy to use	3.3	Super Big Emoji - Rating 1/5 stars - natham diaz - 06/02/2020 - Bad - Can't take it off the phone Rating 5/5 stars - BmyrE1@1 - 07/22/2020 -		Company not found in Crunchbase or Dun and Bradstreet.	https://docs.google.com/document/d/1wE3i4i51WMbihINJE-E8V-5c3fG24Vmif0kuAii630/edit
INDIRECT COMPETITORS						
Big Emoji Stickers For Whatsapp WASTickerapps	Unable to test	4.2	Rating 1/5 stars - XxRealmOfDarknessX x36x - July 5, 2020 - 50 - I Read The 5 ⭐ Review's & Thought I'd Try It, After DLing, The Emoji List Has A Amazing Layout, But Sadly, I'm Getting	Can only be use in whatsapp app on Android.		https://docs.google.com/document/d/1s0SofMblwGUxkifFqJcJtOo_nw-rak8PUBV6SGX-QY/edit

EMOJI RESEARCH | COMPETITIVE ANALYSIS MARKET SUMMARY

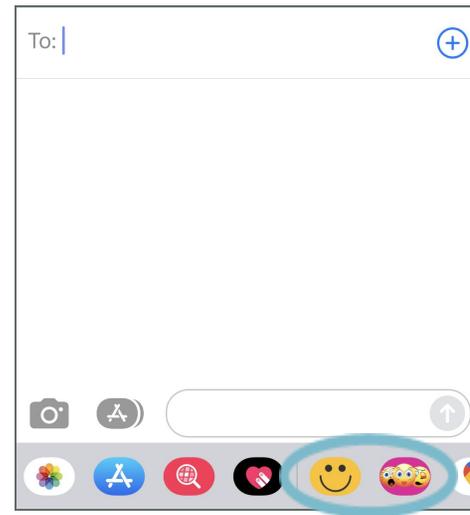
	PROBLEM SOLVED BY VALUE PROPOSITION	INTEGRATES WITH iMESSAGE	USES APPLE LICENSED IMAGES	UPDATED SINCE 2016	FREE
 ADULT EMOJI ANIMATED EMOJIS	✗	✗	✗	✓	✓
 EMOTICONS KEYBOARD PRO ADULT EMOJI FOR TEXTING	✗	✗	✗	✗	✗
 ADULT EMOJI PRO & ANIMATED EMOTICONS FOR TEXTING	✗	✗	✗	✓	✗
 ADULT EMOJIS STICKERS PACK FOR NAUGHTY COUPLES	✗	✓	✗	✗	✗
 BIG EMOJI KEYBOARD	✗	✗	✗	✗	✓
 SUPER BIG EMOJI	✗	✓	✗	✗	✓
 BIG EMOJI STICKERS FOR WHATSAPP	✗	✗	✓	✓	✓



The competitive analysis revealed that 6 iOS apps offer large emojis and 30% of those seamlessly integrate with iMessage. Integrating with iMessage means they could be used without having to leave iMessage and open a secondary application to insert an emoji into a text, which fulfills the users' desire for a simple and

easy solution. However, none of those apps solve the emoji problem as part of their value proposition and 60% of them had not been updated since 2016.

Example of 2 existing app solutions
integrating with iMessage



I recommended creating a **concept evaluation plan** to identify the next round of high-level questions to ask, develop hypotheses to test, and select the appropriate methods and tools to be used.

iOS EMOJI RESEARCH | **CONCEPT EVALUATION PLAN**

HIGH-LEVEL OBJECTIVE: We need to test our hypotheses regarding users' attitudes and behaviors toward the emoji problem and potential solutions to better understand their needs prior to designing and prototyping our solution.

RESEARCH QUESTION 1	Do farsighted users with iPhones like using emojis?
UNDERLYING ASSUMPTION	Users think emojis are a fun and valuable part of digital communications.
HYPOTHESIS 1	If farsighted users with iPhones use emojis in their text messages, then they value them as an important part of digital communication.
RESEARCH QUESTION 2	Do farsighted users with iPhones have a hard time differentiating between small emojis?
UNDERLYING ASSUMPTION	Users who are farsighted are more likely to have trouble seeing small emojis.
HYPOTHESIS 2	If a user is farsighted, then they are likely to have trouble seeing small emojis.
RESEARCH QUESTION 3	Are farsighted users with iPhones, who have trouble seeing small emojis, willing to download a separate app solution?
UNDERLYING ASSUMPTION	Users are more likely to prefer simplicity and do not want to have to switch back and forth between iMessage and a different application to solve their small emoji problem.
HYPOTHESIS 3	If a user finds emojis hard to see, they are more likely to be willing to download a separate app solution.

METHODS

HYPOTHESIS 1 - HOW WE MEASURE	<ul style="list-style-type: none"> • Attitudes • Rate Likert statements scale 1-5
-------------------------------	---

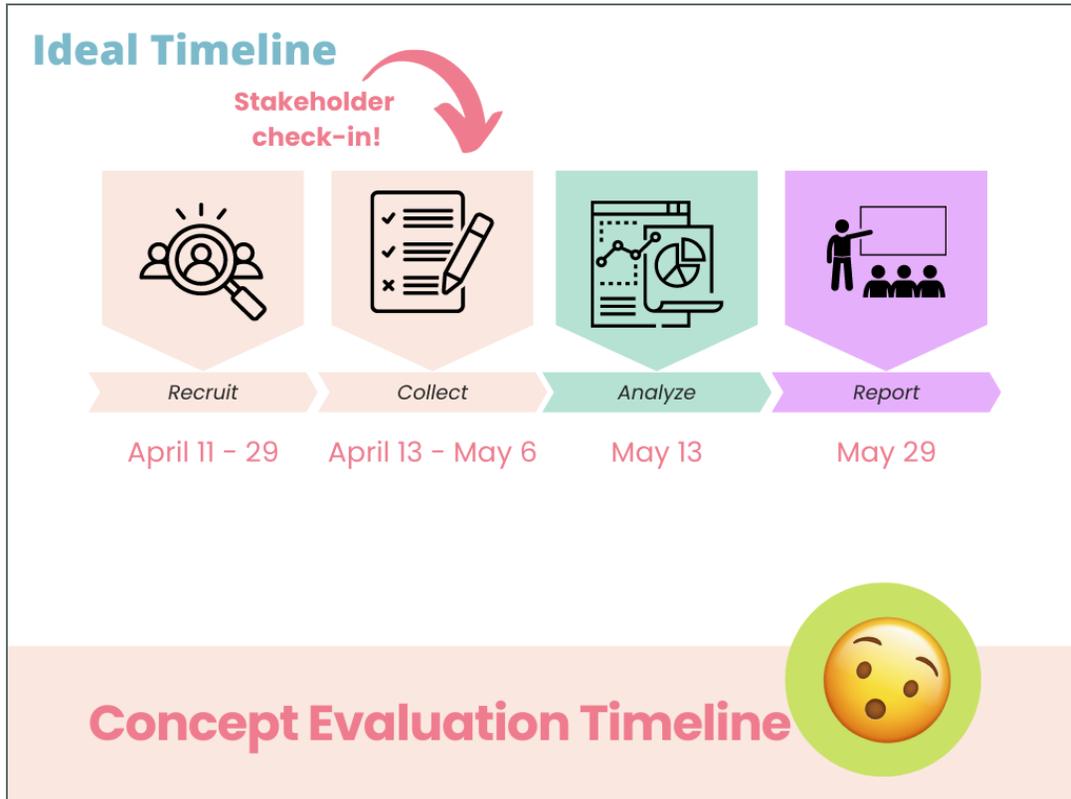
HYPOTHESIS 2 - HOW WE MEASURE	<ul style="list-style-type: none"> • Attitudes • Rate Likert statements scale 1-5
HYPOTHESIS 3 - HOW WE MEASURE	<ul style="list-style-type: none"> • Attitudes • Rate Likert statements scale 1-5
PARTICIPANTS	
RECRUITING TACTICS	<ul style="list-style-type: none"> • PollPool • social media (twitter, linkedin, instagram) • friends • colleagues • irl social network
SCREENER CRITERIA	<ul style="list-style-type: none"> • Must have presbyopia (men & women age 40+) • Must use iOS device • Must use emojis in texts • Must reside in North America
SUGGESTED NUMBER OF PARTICIPANTS	<ul style="list-style-type: none"> • Interviews: 3 - 10 ppl • Quantitative: ≥ 20 ppl • Survey: ≥ 100
RESOURCES	<ul style="list-style-type: none"> • Qualtrics – Student account • GoogleForms – free • SurveyMonkey – \$25/mo • UserInterviews – \$175/mo (60 sessions/yr) • PollPool – free-ish (poll coins) • SurveySwap - free-ish (need to take others' surveys) • SurveyCircle - free-ish (need to take others' surveys) • Reddit - free

SAMPLING

- Convenience
 - PollPool
 - social media (twitter, linkedin, instagram)
 - friends
 - colleagues
 - irl social network
-

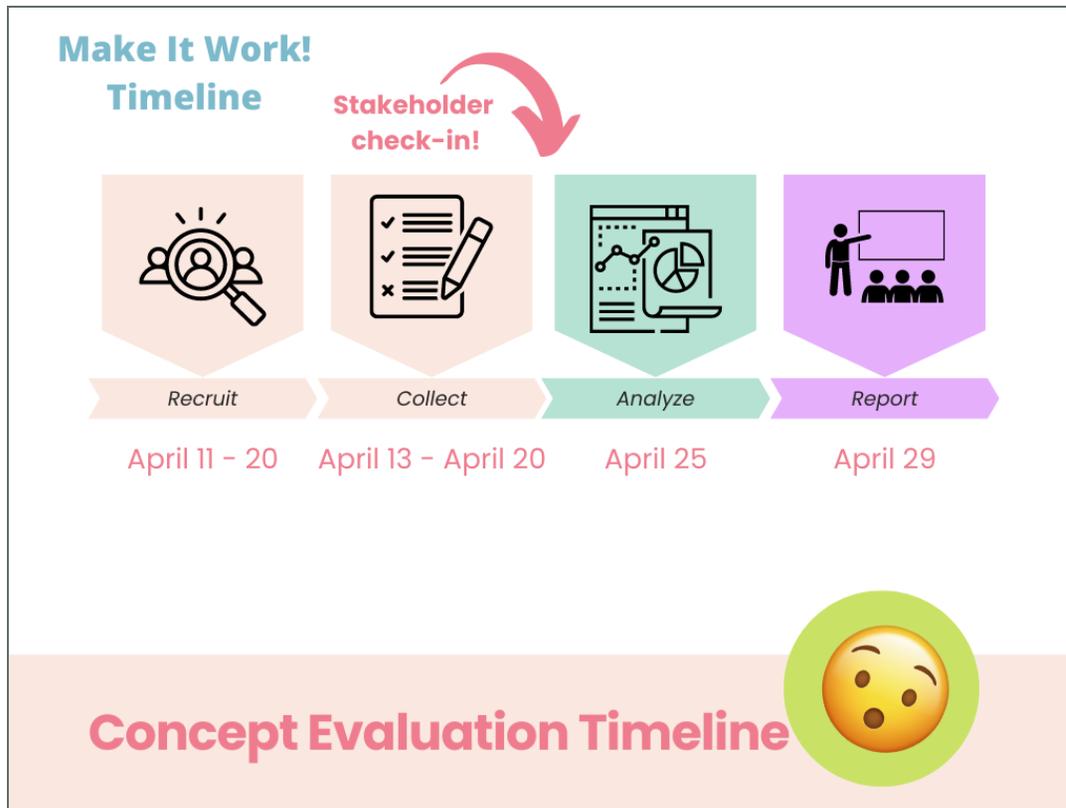
TIMELINE

1. IDEAL OPTION - 6 WEEKS



- Recruiting participants takes place **April 11 - April 29** (need time to build up points on PoolPoll, SurveySwap, & SurveyCircle)
- Collecting surveys takes place semi-concurrently **April 18 - May 6**
- Will check in with stakeholders after collecting surveys (tentatively on **April 29**) to give a sense of what we think we found and if any revisions need to be made
- Data analysis will be completed by **May 13**
- Report of findings will be delivered to stakeholders on **May 20**

2. MAKE IT WORK! OPTION – 3 WEEKS



- Recruiting participants takes place **April 11 – April 20** (need time to build up points on PoolPoll, SurveySwap, & SurveyCircle)
- Collecting surveys takes place semi-concurrently **April 13 – April 20**
- Will check in with stakeholders after collecting surveys (tentatively on **April 22**) to give a sense of what we think we found and if any revisions need to be made
- Data analysis will be completed by **April 25**
- Report of findings will be delivered to stakeholders on **April 29**

MATERIALS

SURVEY DRAFT

What this study is about

The purpose of this study is to understand how people use emojis on an iPhone. Your participation in this study will help us create potential new apps.

Your participation in this study is voluntary

You can leave the survey at any time by closing your browser.

Information we want to collect

We will ask you some questions about how you use emojis in the survey.

How we ensure your privacy

The researchers will not have any identifying information about you. We may publish research reports that include your comments and answers but your data will be anonymous. This means your name and identity will not be linked in our research reports to anything you say. We will delete your personal data after two years. If you have any questions, please contact Gini Martinez at gini.martinez@cgu.edu.

Your consent

Please sign this form showing that you consent to us

I give my consent:

- Yes
 - No
-

SCREENER QUESTIONS

1. Do you own an iPhone?

- Yes
 - No
-

2. Do you wear corrective lenses (glasses or contacts) to see objects up close?

- Yes
 - No
-

3. If no, has your doctor ever recommended that you wear corrective lenses (glasses or contacts) to see objects up close?

- Yes
 - No
-

LIKERT SCALE QUESTIONS

Please read each of the following statements carefully and rate how strongly you agree with each one.

1-Strongly disagree 2-Somewhat disagree 3-Neither agree nor disagree 4-Somewhat agree 5-Strongly agree

1. I like using emojis in my text messages.

2. I think emojis are a fun way to express myself in text messages.

3. Sometimes it is hard to see the details of emojis in the keyboard menu.

4. I do not think emojis are important for communicating in my text messages.

5. It is easy for me to find the best emoji in the keyboard menu to convey my feelings.

6. I value having a diverse menu of emoji images to choose from.

7. I cannot always tell the difference between emojis in the keyboard menu.

8. I like taking my time to find the right emoji for a text message.

9. I am often concerned I will choose the wrong emoji because I cannot see the menu clearly and my message will be misinterpreted by the receiver.

10. I like to use other emoji applications besides the one that comes standard with my iPhone.

11. Sometimes I send an emoji in a separate text message so it will appear larger to the receiver.

12. Sometimes I worry I will accidentally send the wrong emoji in a text because I could not see it clearly.

13. If the emojis in the keyboard menu were larger, it would be easier for me to choose the right one.

14. It is important to me that I use the same emoji keyboard menu as the people I text with.

15. I like to use unique emoji images that make my text messages stand out from other people's.

16. I would be willing to download a separate application if it made emoji details easier to see.

17. I find it easy to see the differences between different emoji images in my iPhone keyboard menu.

18. I would use emojis in my text messages more often if I could tell them apart more easily.

19. I would not download an application just to make sure I can choose the right emoji.

20. I think it is fun to try new applications on my phone.

OPEN ENDED QUESTION

21. If you have trouble seeing the details of emojis in the standard iPhone menu, what current workaround methods do you use?

DEMOGRAPHICS

22. What is your year of birth?

23. Gender Identity (select all that apply) [OPTIONS ORDER WILL BE RANDOMIZED]

- Non-binary/non-conforming Transgender
 - Male
 - Prefer not to say
 - Female
 - Self-identify_____
-

24. Are you of Hispanic, Latino, or of Spanish origin?

- Yes
 - Maybe
 - No
-

25. How would you describe yourself? (select all that apply) [OPTIONS ORDER WILL BE RANDOMIZED]

- Prefer not to say
 - Middle Eastern or North African
 - Native Hawaiian or Pacific Islander
 - Asian American or Asian
 - American Indian or Alaska Native
 - Hispanic or Latino
 - African American or Black
 - White or Caucasian
 - Self-identify_____
-

26. What is the highest level of education you have completed?

-
- High school
 - Some college
 - Associates degree
 - Bachelor's degree
 - Master's degree
 - PhD or higher
-

QUANTITATIVE SURVEY RESEARCH

Once I had a concept evaluation plan in place, I was able to create a **quantitative survey** within Qualtrics. Because I needed participants who only use iOS devices, I screened for individuals who have been given a more general diagnosis of farsightedness, rather than a more specific diagnosis of age-related farsightedness so as to not further constrain my potential participant pool. While I had proposed 6-week and 3-week timeline options in my concept evaluation plan, the constraints of an academic semester presented an even shorter timeline of just 2 weeks. Due to the tight schedule, I was not able to take full advantage of the survey sharing sites.

WHAT ACTUALLY HAPPENED TIMELINE - 2 WEEKS

- Recruiting participants took place **April 24 - April 29** (recruited mostly from Twitter, LinkedIn, Reddit, family, and friends)
- Collecting surveys took place simultaneously **April 24 - April 29**
- Checked in with stakeholders after collecting surveys and began analysis
- Data analysis completed by **May 3**
- Report of findings was delivered to stakeholders on **May 6**

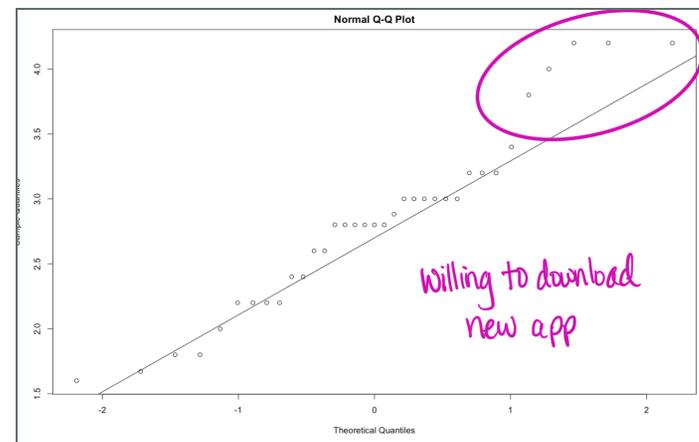
After publishing my survey, I began posting it to various social media sites—Twitter, LinkedIn, Reddit—and inviting classmates to share with their friends and family. I also posted to several survey sharing sites—PoolPoll, SurveyCircle, and SureySwap—and began taking other researchers' surveys to help build up points.

iOS EMOJI RESEARCH | RESULTS & RECOMMENDATIONS

Despite having only one week of data collection, I was able to obtain a respectable sample of $n = 35$, with a mean age of 50, and a ratio of 2:1 females to males. I was able to make meaningful analysis of the data and recommend next steps.

With regard to participants having trouble seeing emojis and differentiating between similar emojis, the data clustered around the mean. While this did not overwhelmingly signal that the emoji problem exists in the majority of the population, it did further confirm the problem exists and that more discovery is warranted. I did find a positive relationship between participants who had trouble seeing small emojis and those who would be willing to download a separate app solution. In fact, there were approximately 5 extreme users who were highly enthusiastic about downloading a separate app solution.

Extreme users who have trouble seeing small emojis and are willing to download a separate app solution





EMOJI RESEARCH | QUANTITATIVE FINDINGS

Sample

35 = n

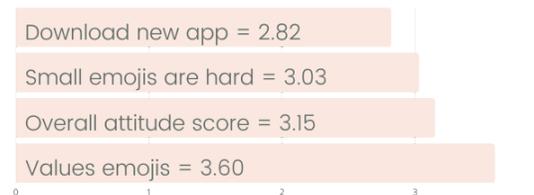
50 = Mean age

 2:1 ratio females to males

Limitations

 Small sample size
Convenience sample

Attitudes Averages*



Construct Insights

- 5 Extreme users highly enthusiastic about downloading a separate app
-  There is a **positive relationship** between users who find small emojis hard to see and users who are willing to download a separate app

*Cronbach's alpha confirmed survey internal validity

1



EMOJI RESEARCH | RECOMMENDATIONS

Bottom Line

We have quantitative evidence small emojis are a problem for farsighted individuals and we've identified potential users for our value proposition.



High Priority Next Steps

1. Brainstorm iOS app features
2. Create a prototype
3. Test

Low Priority Next Steps

-  Investigate demographic information, attitudes, and behaviors of the extreme users who are most enthusiastic about downloading a separate app

2

iOS EMOJI RESEARCH | **EXECUTIVE SUMMARY PRESENTATION SLIDE DECK**

Presentation slide deck can be found [here](#).

iOS EMOJI RESEARCH | **WHAT I LEARNED**

What worked well?	<ul style="list-style-type: none">• I was able to acquire reasonable sample sizes for both the qualitative and quantitative research.• There were clear insights gleaned at each step of the research process (I suspect that is not always the case).
What challenges did I encounter?	<ul style="list-style-type: none">• The learning curve was my primary challenge, as this was my first UX research project. I didn't know what I didn't know.• The timeline to turn around the quantitative survey research was tight.
What would I do differently and/or additionally?	<ul style="list-style-type: none">• Fairly early in the process I caught myself being driven by potential solutions rather than the problem and found that to be a distraction. Going forward, I would allocate a place (shared doc, notebook, whiteboard) for ideas related to potential solutions from the start, so that they can be recorded for future reference and free that cognitive space for problem discovery.• I would have recorded the qualitative interviews. It would have been nice to have audio snippets and screenshots of participants for my deliverables.• I would have included many of the qualitative interview questions in the quantitative survey questionnaire. I would have included more psychographic questions in the survey questionnaire. In hindsight, I saw how valuable it was to capture participants' attention for the survey and I should have capitalized on that by gathering as much information from them as reasonably possible.• I would have included a final question in the quant survey asking if they were open to being contacted for follow-up questions.• I would keep a running diary of what I did at each step, why I did it, what resulted from it, and what that meant for the project. This would be useful for communicating to stakeholders later on as well as influencing future research projects.