



Wyze: AI vs Human Customer Support

WYZE x W

Current State

- Customers rely on agents
- Difficult to find chat support
- Multiple phone numbers

Goal Development

How can we leverage AI customer support to the maximum without losing customers and profit?

KPIs

- CSAT score increase
- Self Service Rate increase
- Reduced time to access support
- Reduced cost per ticket

Final Method

Chat Prompts

UX/UI

Chat Prompts



Prompt Changes and "Training the Customer"

Two iterations in the Wyze chatbot:
1. **Increase** in follow up questions
2. **Increase** in friendliness

84% → 89% Self Service Rate over 3 months

Survey Design and User Preferences

"How does changing the characteristic of the chatbot impact the overall customer satisfaction."

3 Characteristics
5 Chat Prompt Types

Incomplete Block Design

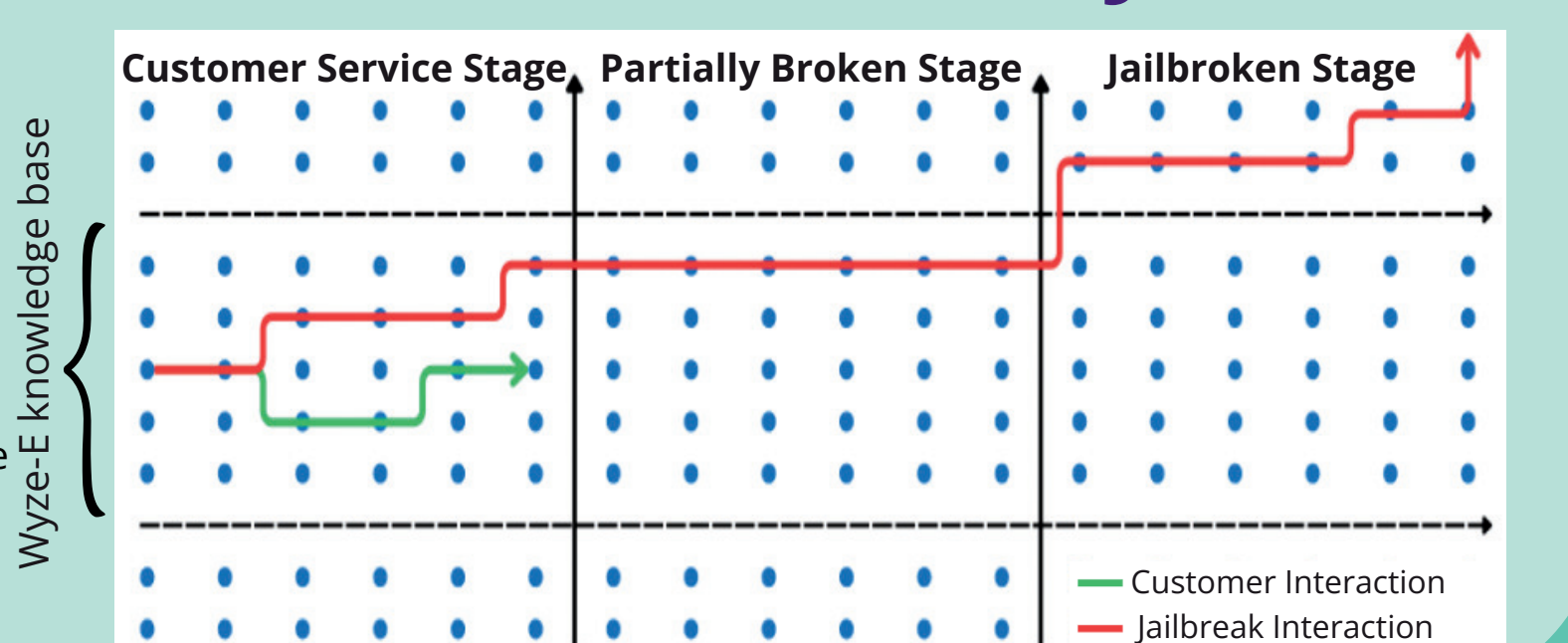
130 Responses

*This study was UW IRB approved

Jailbreaking Wyze-E for Sentiment Analysis

Multi-turn (Prompt Engineering)

89% Assertiveness
96% Communicability
70% Emotional Intelligence
Customer Satisfaction: **81%**



Validating Suggestions using Hugging Face

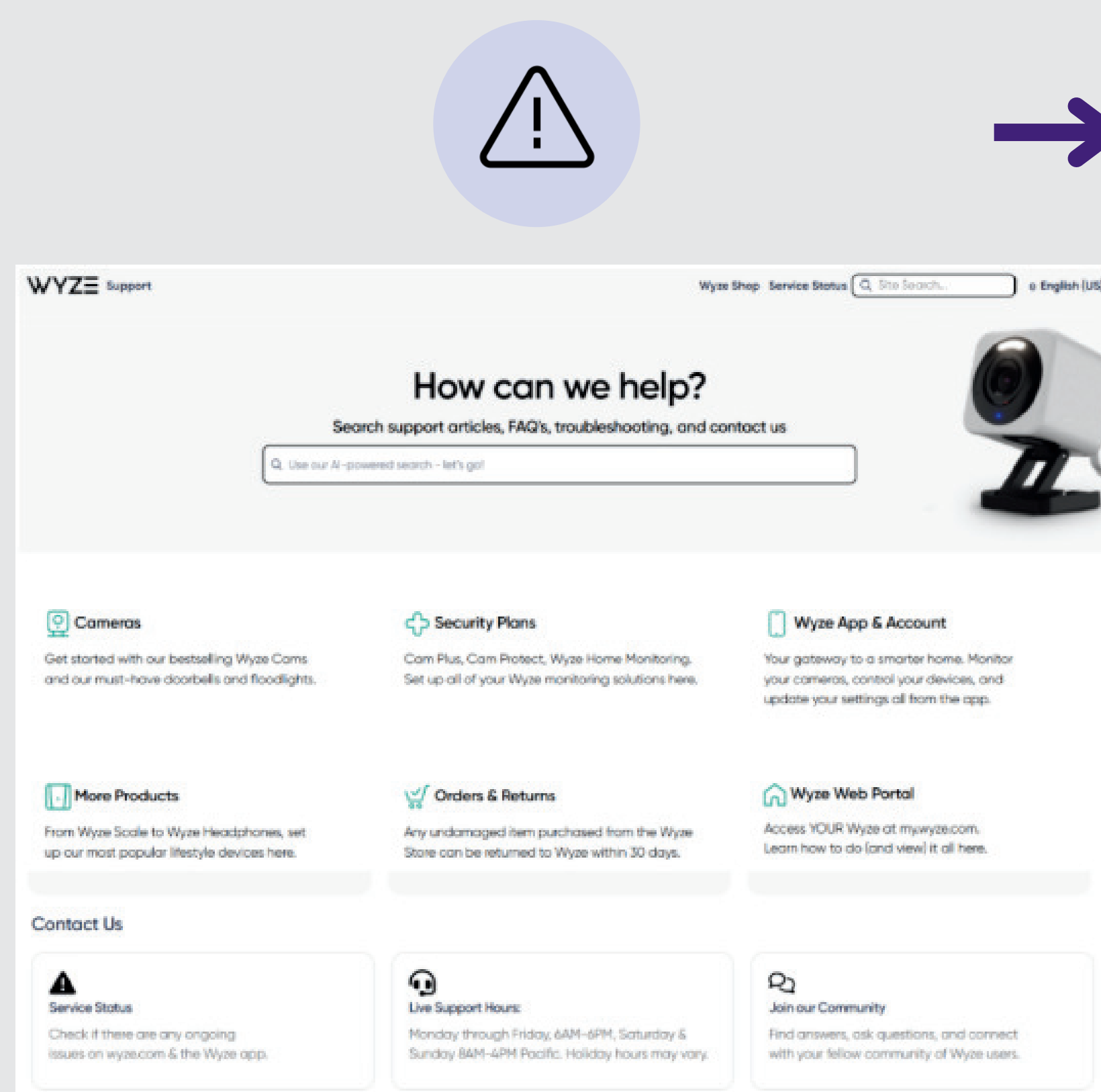
Assertive	53	19
Not Assertive	57	15
Emotionally Intelligent	53	19
Not Emotionally Intelligent	70	
Communicable	60	12
Not Communicable	56	16
Number Correctly Classified		

Performance of Zero-Shot Classification on Test Sentences

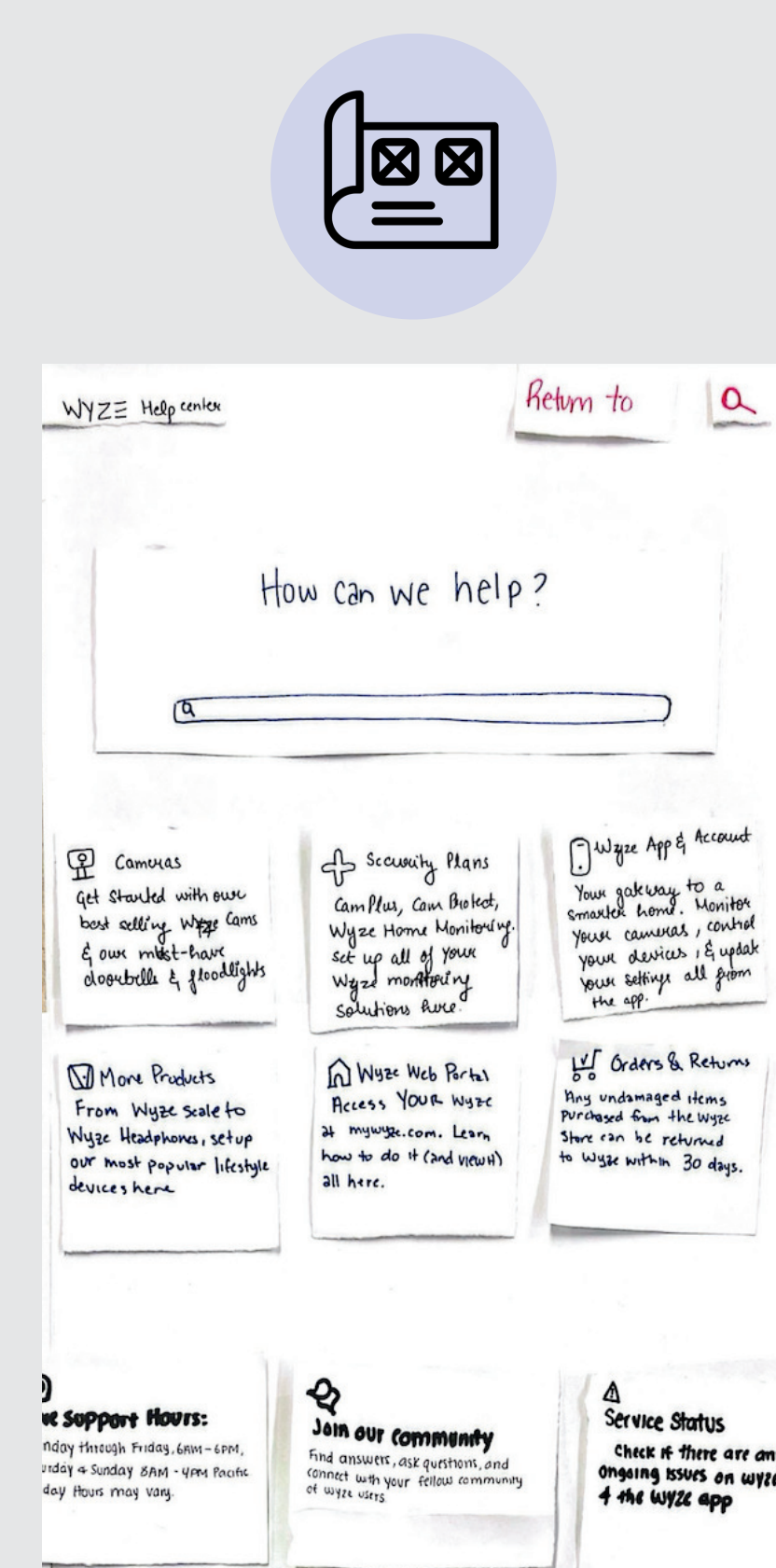
Text Classification → **Zero-Shot Classification**
*Fine-Tuned BERT *NLI

UX/UI Redesign

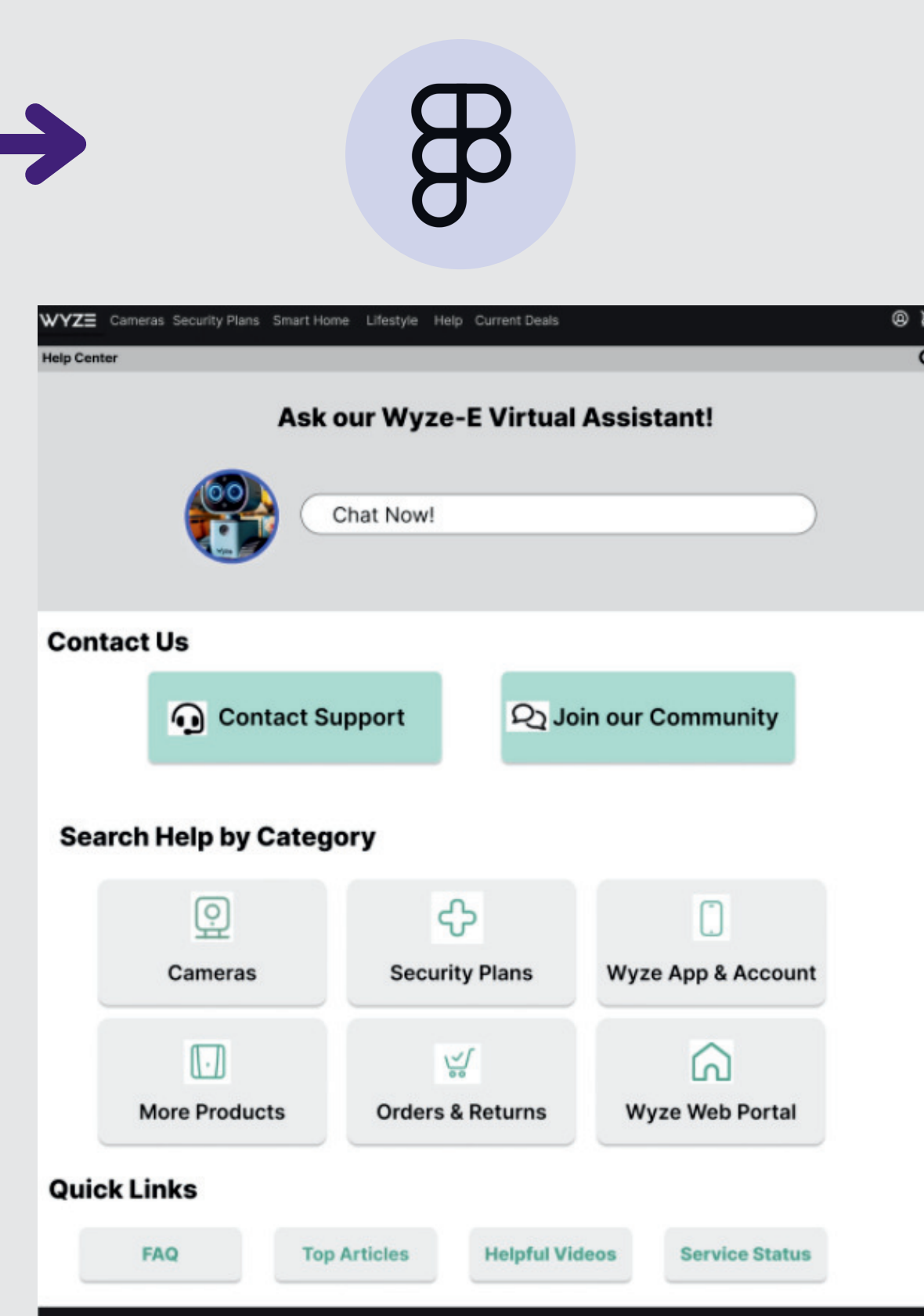
Initial Findings



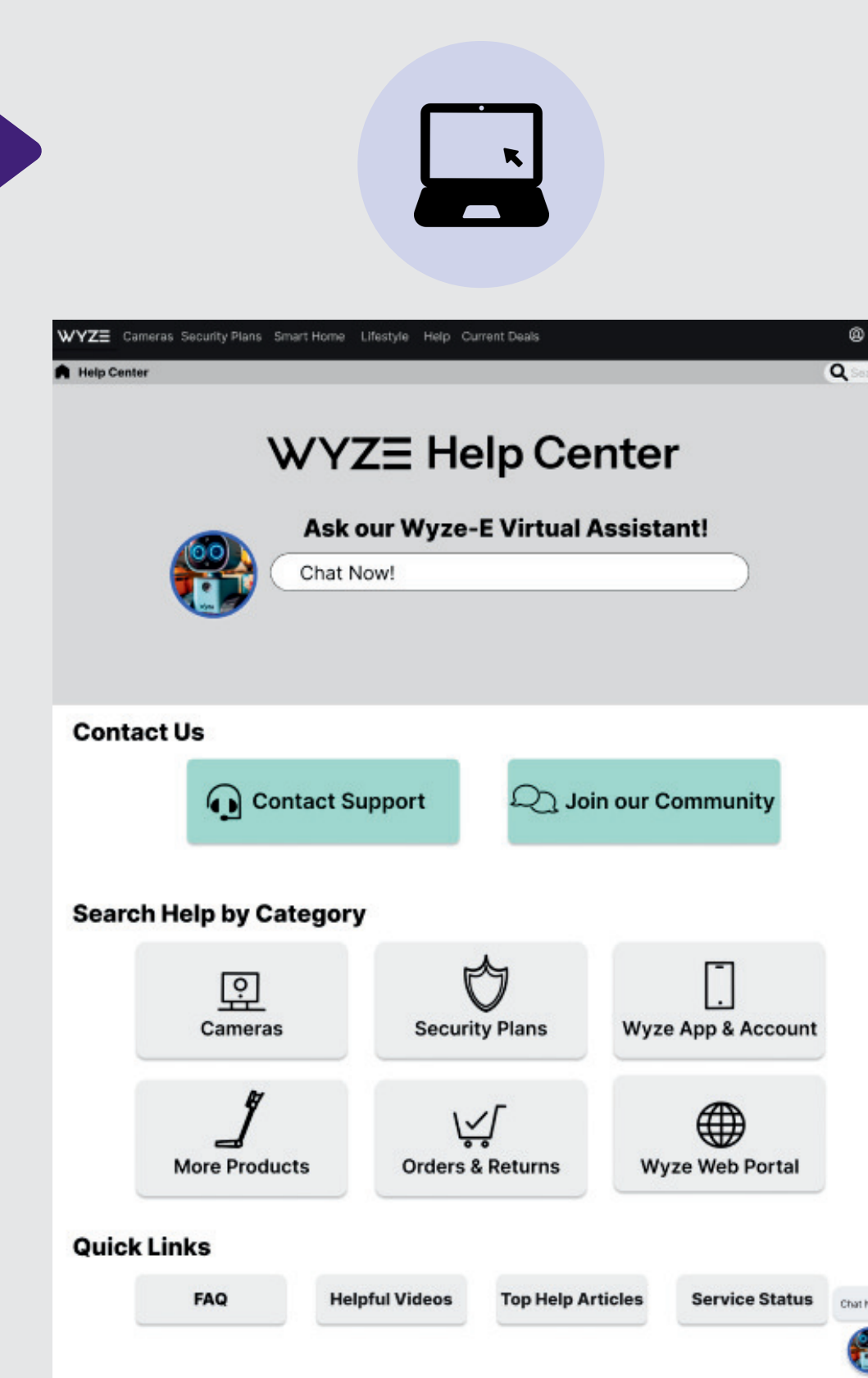
Paper Prototype



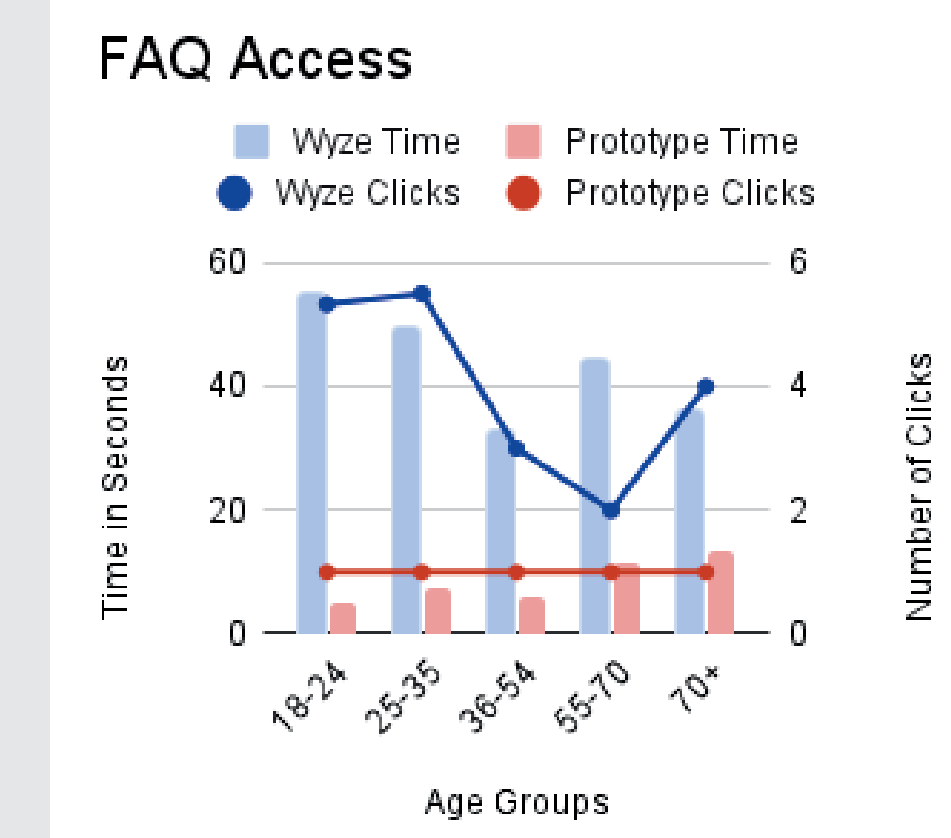
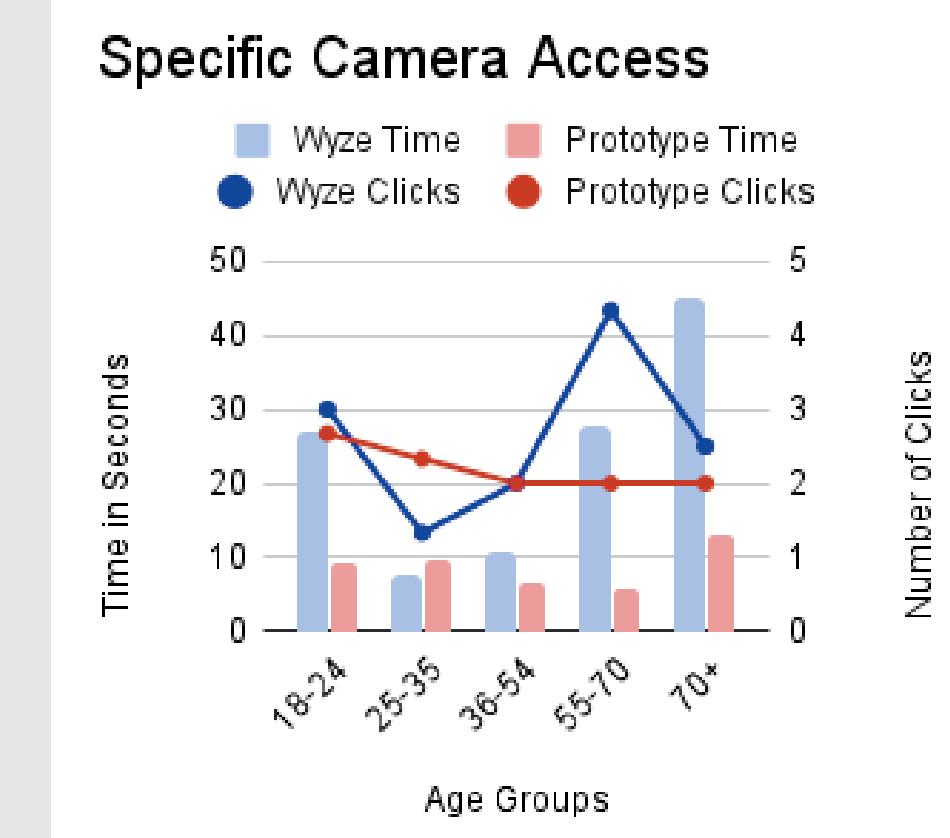
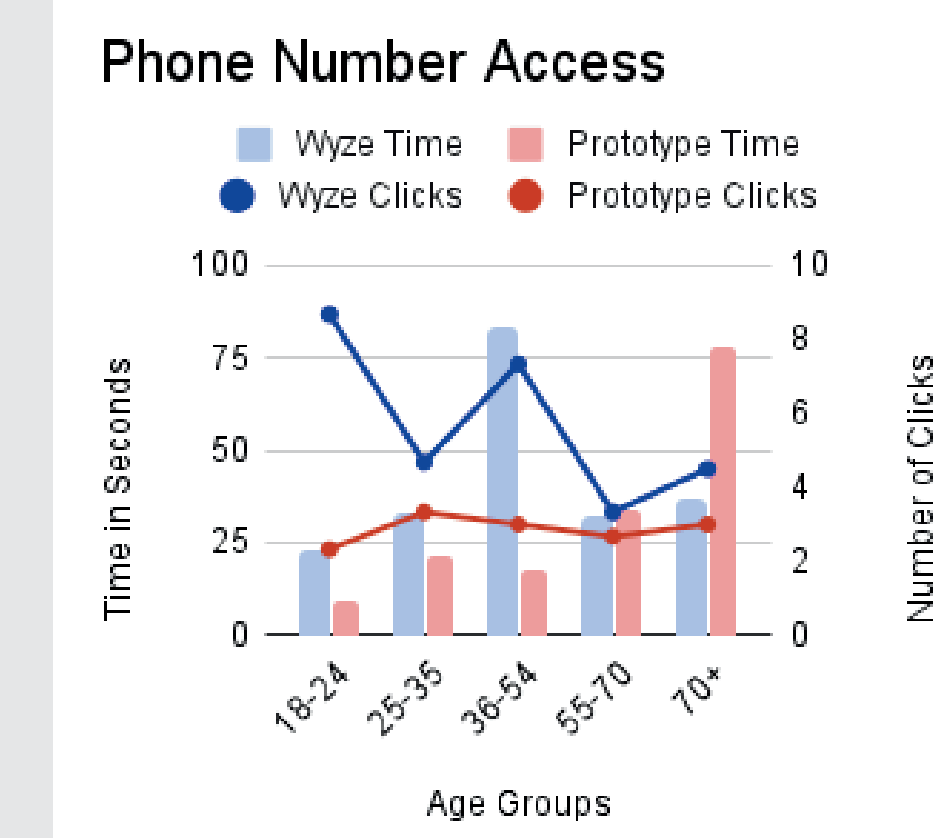
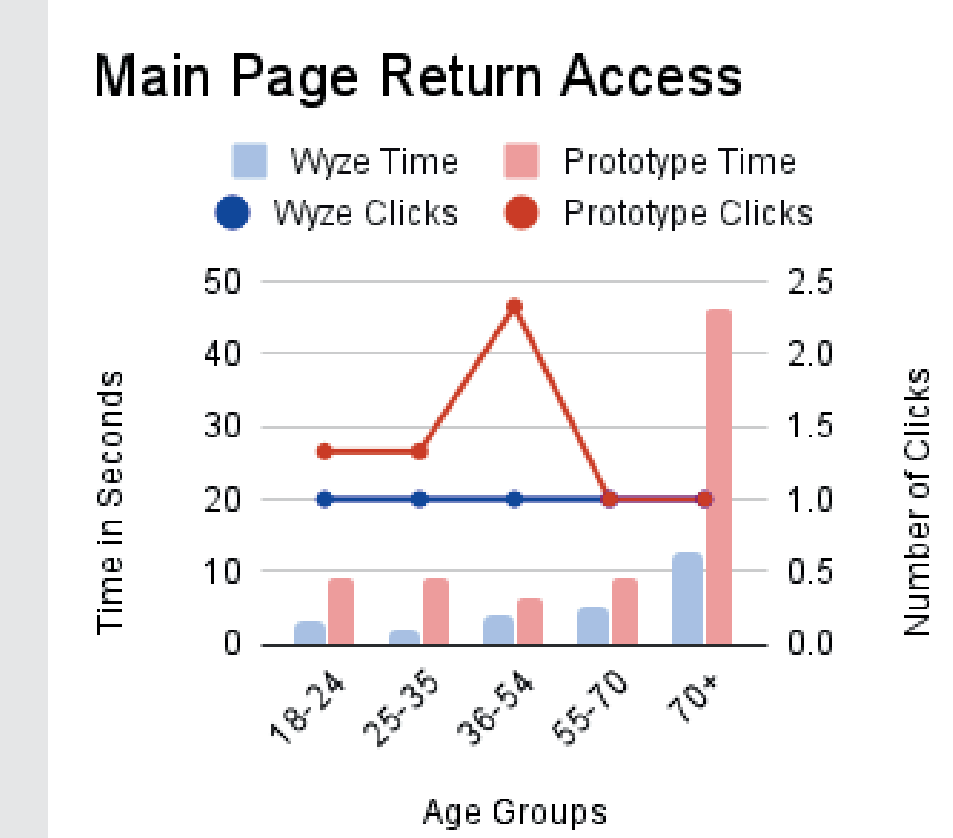
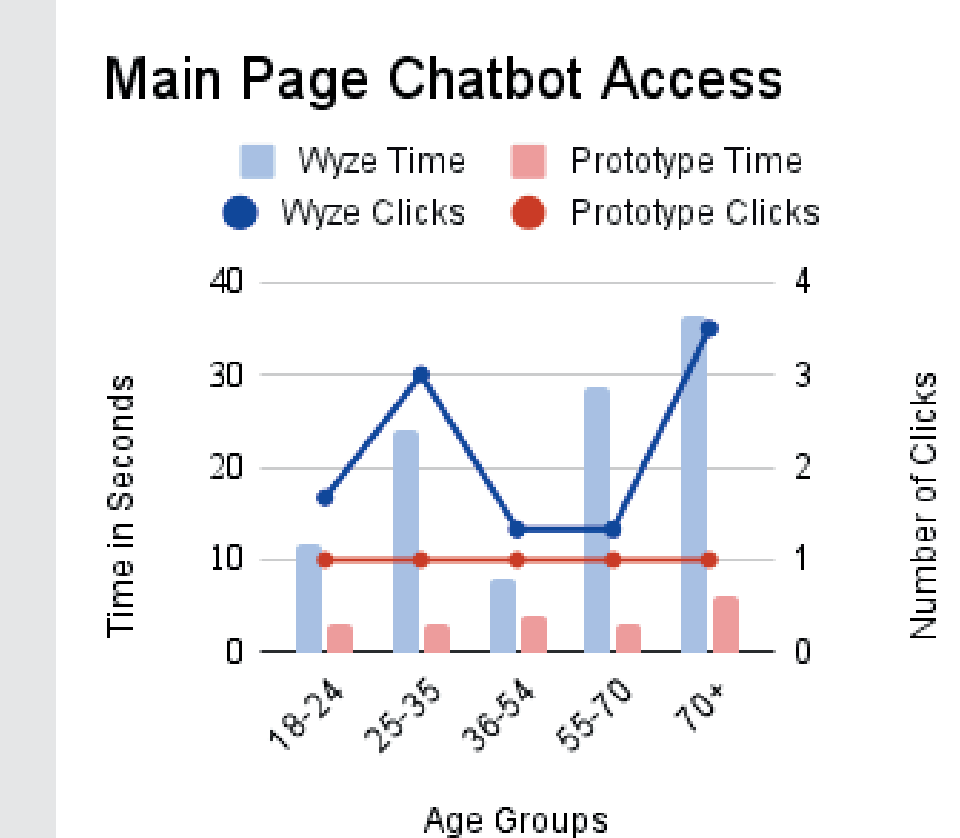
Medium-Fi Prototype



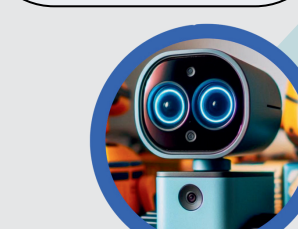
Final Prototype



A/B Testing



Chat Now!



Final Savings

\$145K+

Saved Currently
March - June

\$485K+

Per Year

Self Service Rate remains at 89%

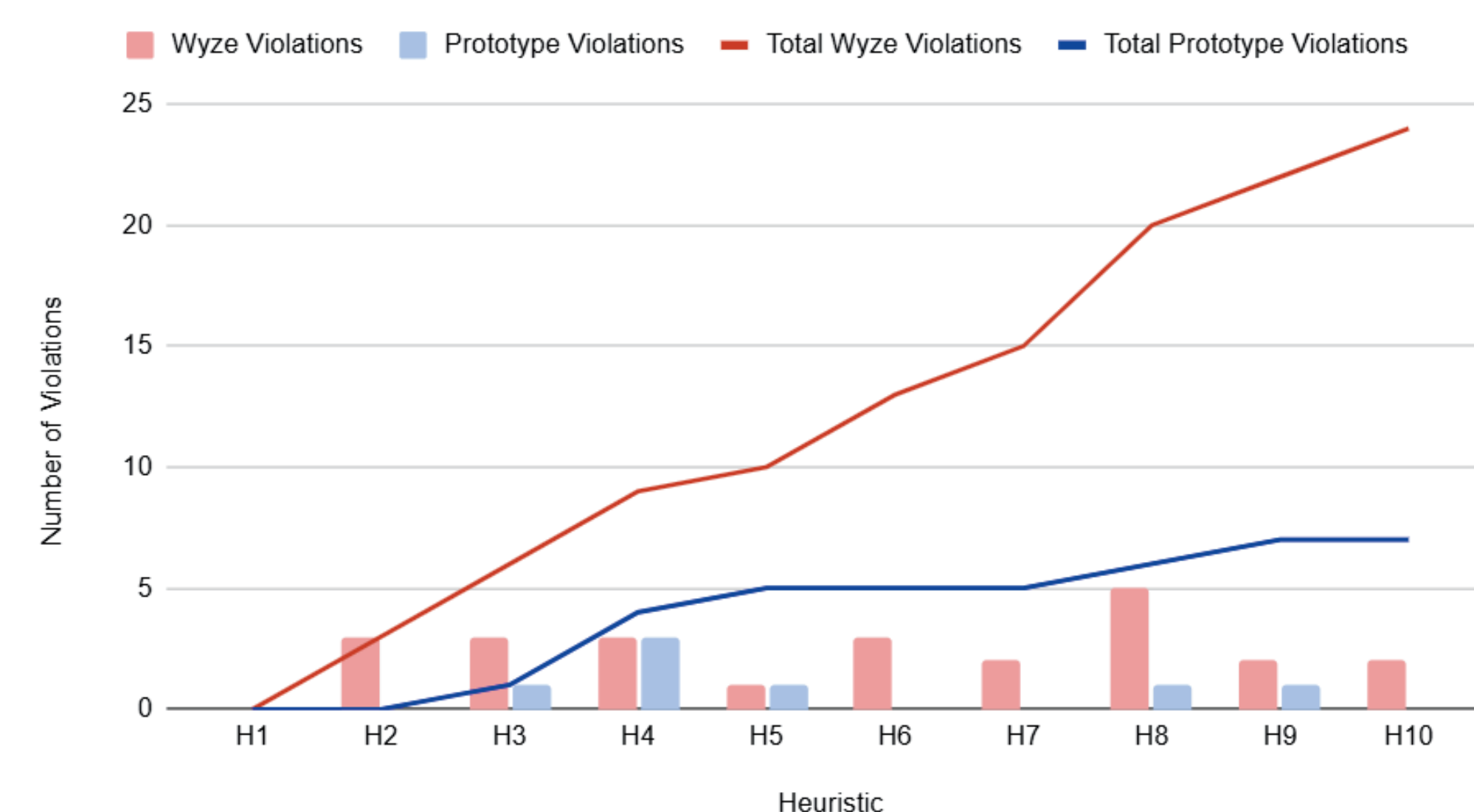
UX/UI Results

A/B Testing Results

Users save **56.85%**
of their time

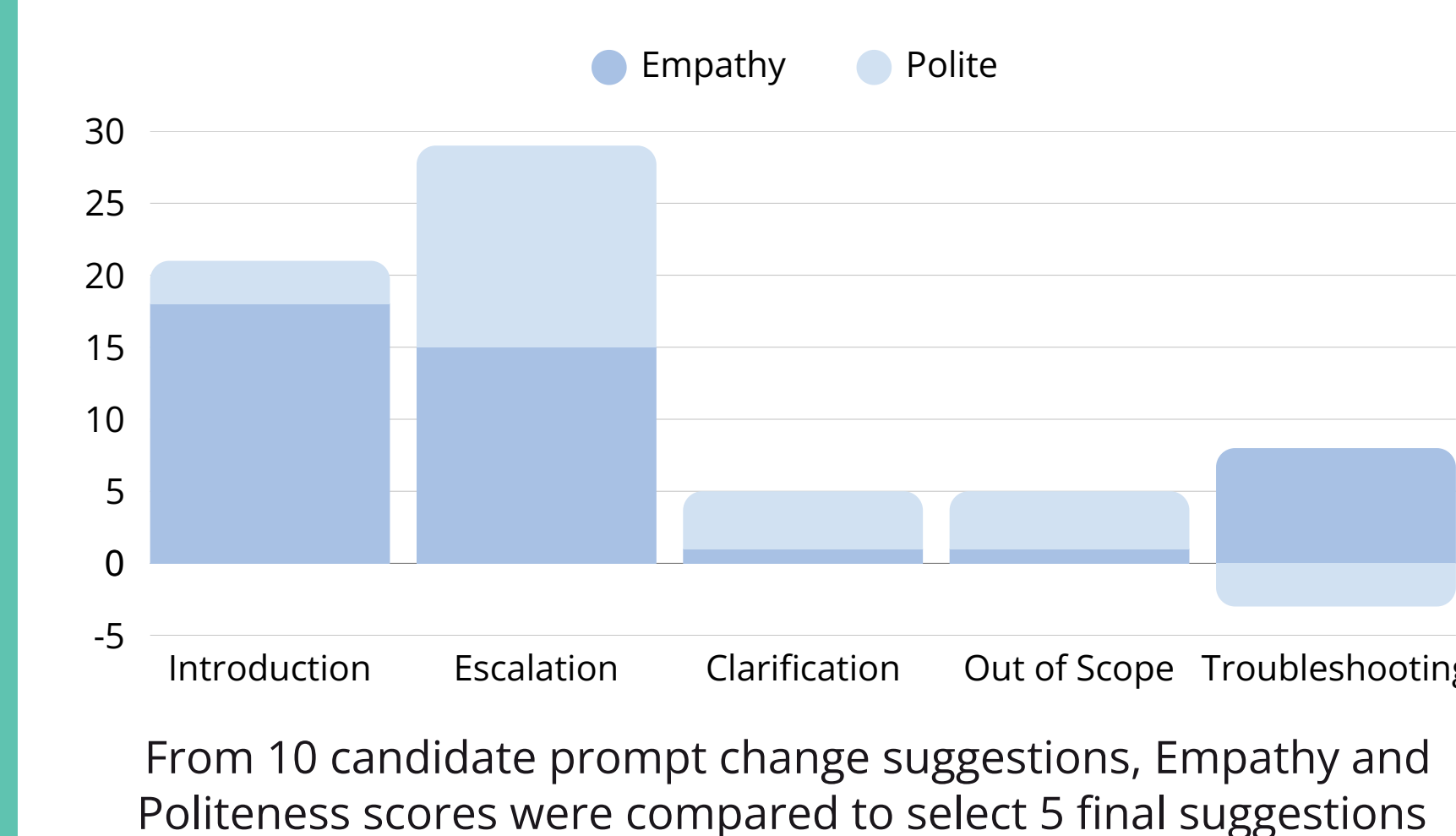
Users save **49.04%**
of their clicks

Heuristic Evaluation



Chat Prompts Results

Percentage Difference Between Final and Rejected Suggestions



Effect of Chatbot Characteristics

