

STRANGER
INTERACTIONS
IN THE DINING HALL

Advanced Human Computer Interaction

Cornell University

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Concept Statement

Technology provides new affordances that allow people to connect remotely. These affordances also make it possible for people to preoccupy themselves with social networks, work, or entertainment wherever they are. **Thus, it has become a social norm for people to refrain themselves from talking to strangers in public spaces.**

The goals of this study are to:

- Question **behaviors** and **cultural norm**.
- Call attention to the benefits of **stranger interactions**.
- Explore the boundaries of our design space.

Methods

Literature Review

- Research Question and Hypothesis Formation

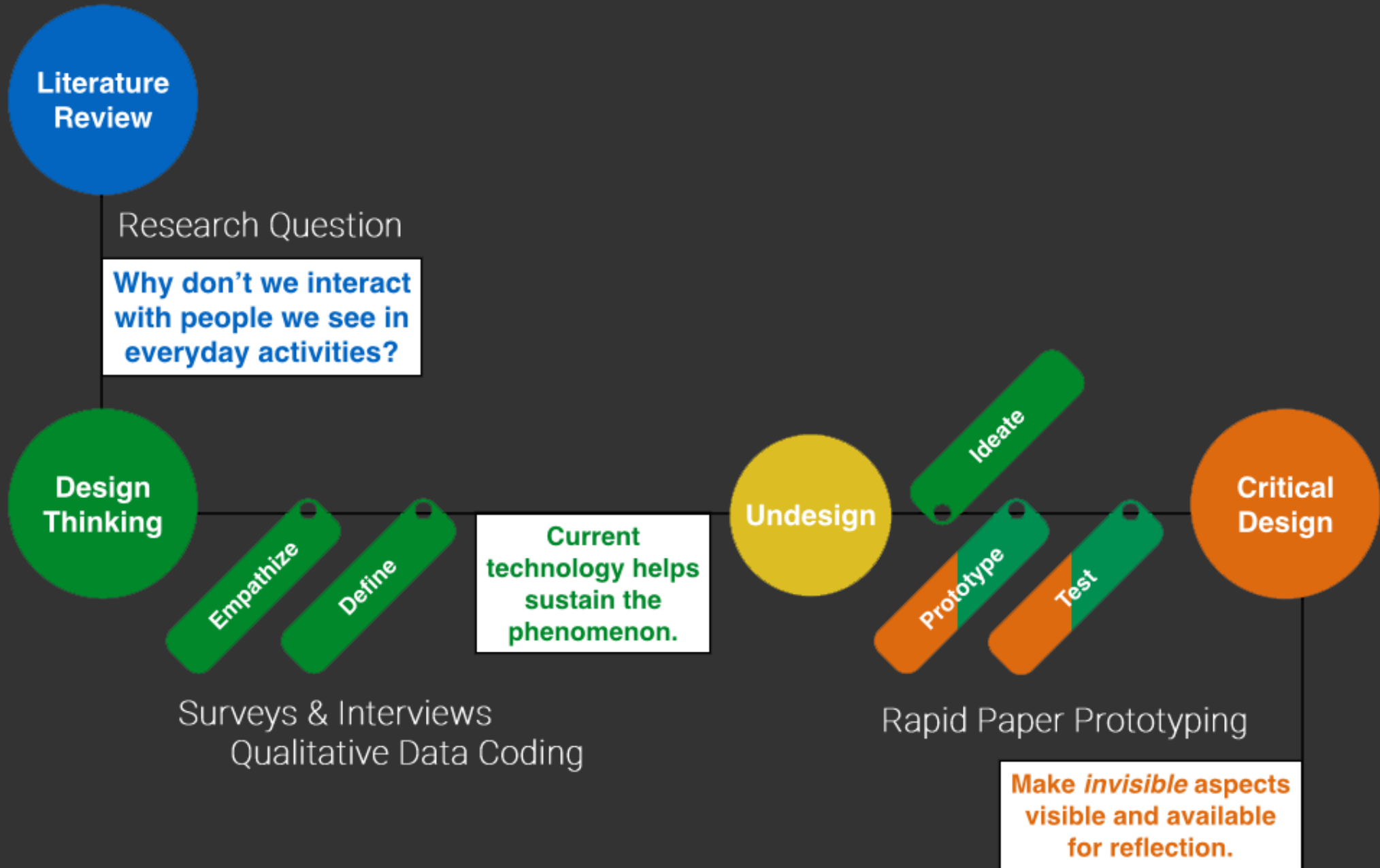
Design Thinking

- Ethnographic Observation
- Surveys and Interviews
- Qualitative Data Analysis

Ideation

- Non/Un-design
- Critical Design

Implementation



Background Information

Research Shows...

Human beings are social animals. Being socially connected increases our happiness and health. In contrast, being socially disconnected and isolated leads people to feel depressed and unhealthy.

Cornellians are a part of a ***gellenschaft*** society focused on individual self-interest that also desires characteristics of a collective ***gemeinschaft*** community.

People think and act against the desire to pursue interpersonal communications due to their **misperception of comfort**. The risk of the slightest feelings of discomfort prevents people from experiencing the happiness gained from successful interactions.

The Study

The **Cornell community** is separated into smaller diverse communities based on academic interests and living spaces, making it more difficult for students to connect with others in different majors or living in different residential halls.

Dining spaces serve an important purpose in student life, where students can eat, work, and socialize together, and even provide opportunities for people to interact with people they do not know.

The Study (continued)

Dining alone is a common occurrence due to different schedules and lifestyles. However, most students avoid interactions with strangers when they are alone.

This study explored stranger interactions in Cornell's dining halls and cafes, offering a better understanding of the lack of interactions in the dining place and the discovery of the barriers that prevent them by creating a design where people question and reflect on their own practice and the social norm.

Motivation

As an HCI researcher, it is important to understand why **people interact with strangers online more than offline**, despite there being an evident desire for and value of more interactive communities, and research indicating that connecting socially and physically makes people happier and healthier.

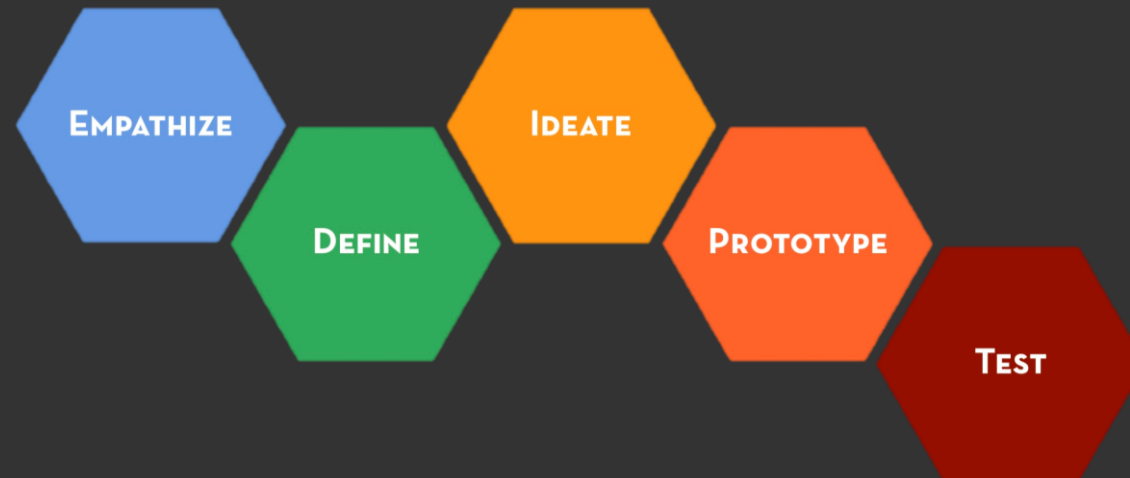
Acknowledging a necessity to **ignore technological capabilities that may lead to technology-based design solutions** will provide a more thorough understanding of the problem, its effects on people, and how to design for it. In doing so, the traditional ideas of “design” are expanded to include un-design or non-design approaches.

Design Process

Design Thinking

Design Thinking encourages **learning about the audience** and using their stories, needs, and insights **to guide the creative process**.

By embodying design thinking, I was able to empathize with the users, define the challenge that needed to be tackled, ideate designs, and prototype and test them.



Design Thinking – Empathize

Ethnographic observations of Cornell students interacting or not interacting with strangers at various locations.

Online Qualtrics survey (n = 44) to gather an understanding of the social behavior of students in situations where engaging with a stranger is likely or unlikely.

In-person interviews (n = 6) with different students to gauge a more in-depth understanding and discussion of the specific perspective of each student when it comes to past experiences interacting with strangers.

What is your current age (in years)?

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other
- ☐ Prefer not to disclose

What is the race/ethnicity with which you best identify?

- ☐ African American
- ☐ Asian
- ☐ Caucasian
- ☐ Hispanic
- ☐ Other (Please specify)

What is your academic standing?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Master's
- ☐ PhD
- ☐ Other (Please specify)

What is your major(s)?

Which university you are in?

- ☐ Cornell University
- ☐ Other (Please specify)

How often do you initiate conversations with people you don't know?

- Never Rarely Sometimes Often Always

In general, how much anxiety do you experience when you attempt to approach or interact with people you don't know?

- None Little Some Quite a Bit Very Much

In what kind of occasion(s) do you find yourself wanting to engage with a person you don't know (regardless of whether you do it or not)?

Please list the reasons that you wanted to interact with people you didn't know (regardless of whether you did it or not)?

In what location(s) on campus would you feel most comfortable interacting with people you don't know?

Please answer the following questions based on your experiences dining alone.

How often do you sit close to people you don't know when dining alone?

- Never Rarely Sometimes Often Always

When dining alone, do you prefer to

- ☐ Sit at a table by yourself?
- ☐ Share a table with a person you don't know?

Imagine you're dining alone, and there is someone you don't know at your table (or sitting close by). How likely are you to initiate a conversation with that person?

- Not at All Likely Slightly Likely Moderately Likely Very Likely Extremely Likely

Please explain why you choose the previous answer.

Imagine you are dining alone, and there is a person you don't know sitting close to you. How likely are they to prefer to interact with you during their meal than to continue to eat alone?

- Not at All Slightly Likely Moderately Likely Very Likely Extremely Likely

Please explain why you think so.

Please imagine two scenarios:

I. You're having your meal by yourself.

II. You're having your meal while interacting with a person you don't know close by.

Which one do you think is a more positive experience? Please explain.

Do you usually eat alone?

- Yes No

Are you willing to participate a follow-up interview? If yes, please leave your email address.

Interview protocol

(Demographic)

What is the race/ethnicity with which you best identify?

What is your academic standing?

What is your major(s)?

(Overview)

- Are you comfortable interacting with strangers in general?
- When would you find yourself interacting with a person you don't know?
 - Why?
 - *NOTE*: expand on their reason, especially when they say "interesting, nice" or anything descriptive about an ideal approachable person.
- Do you think it is hard to initiate an interaction with a stranger?
 - Why?

(Specific to Dining)

- Under what circumstance would you go to the dining hall by yourself?
- Do you do anything besides eat when you are dining by yourself?
- If you are sharing a table with another person you don't know, would you like to talk to him/her?
 - What would motivate or help you to interact with that person?
 - What would prevent you from interacting with that person?
 - Can you elaborate or share an experience where either or both occurred?
- In a past experience sharing a table with a person you didn't know, did you think that person preferred to be left alone, or did you think that person would have liked an interaction with you?
 - Why?
- Think of a time that a stranger you shared a table with initiated a conversation with you.
 - Please tell me about the interaction?
 - How did that person initiate the conversation?
 - How long did the interaction last?
 - Were there any additional interactions with that person at another time?
 - Would you have preferred to have been left alone?
 - Would you have initiated the conversation if they hadn't?
 - Why?
- What would facilitate an interaction for people sharing a dining table who don't know each other?
 - What would make initiating an interaction easier?

Design Thinking – Define

There is a clear trend that most **participants have a desire to interact with strangers**, and they perceive interacting with strangers as a positive experience, **but would not start the interaction**.

Analysis of the surveys and interviews provided a significant amount of insights for the motivations of people's perception and their behaviors pertaining to stranger interactions.

The results can be grouped into two subsets

- Those who were open to or desired stranger interactions – **pro-interaction**
- Those who did not want any kind of social interaction – **anti-interaction**

Pro-interaction

In this group, most people will **likely initiate a conversation**, but it tends to be rarely done.

Most **feel some or little anxiety** when engaging strangers, suggesting anxiety is not a major barrier.

People will interact with strangers if it entailed small talk or non-threatening conversations, or depending on whether they were in a happy or social mood and wanted to socialize outside of their circle.

Anti-interaction

In this group, people chose **not to interact** with others simply because **they did not want to**.

Reasons include:

- Personal space is important
- They were too shy
- There was no reason to
 - they had nothing to talk about
- Social norms
 - they did not want to come off as weird
- Fear of rejection or awkwardness

Design Thinking - Ideation

Because existing technology, mainly mobile phones, contributes to the problem, why would we design another application to attract students to their phones? In fact, **why bother designing technology** at all?

If implementing a technological solution might result in more harm than good, perhaps it would be a better alternative to take a **non-design** approach to the problem and design something other than technology.

The HCI community can benefit from expanding the scope of research from computer-based solutions to impactful designs that consider the effects of current and future technologies. Advanced methods such as non-design and critical design allow for this greater understanding.

Non-design

Designing technology is **not always the right approach**.

Before deciding to design, it is important to consider:

- How the problem definition influences the design approach.
- Is there an equally viable **low-tech or non-tech** approach?
- Will technology result in **more harm** than the situation the technology is meant to address.

A non-design approach to a problem:

- Design something other than technology
- Not designing apps or devices that would promote the use of technology

Critical Design

Critical design involves the use of design to **explore issues and provoke a more open-ended process of reflection on the complex roles of new technology in our lives** – not to solve a specific problem. It involves questioning what design is for, socially, by **asking questions** that make us think about our values and the design process.

The overall objective of this critical design was to further evaluate the experience by making people **question their behaviors** in reference to the **cultural and societal norms**, to call attention to the motivations for which people do or do not interact with strangers, and to provoke new ways of thinking about the situation.

Implementation

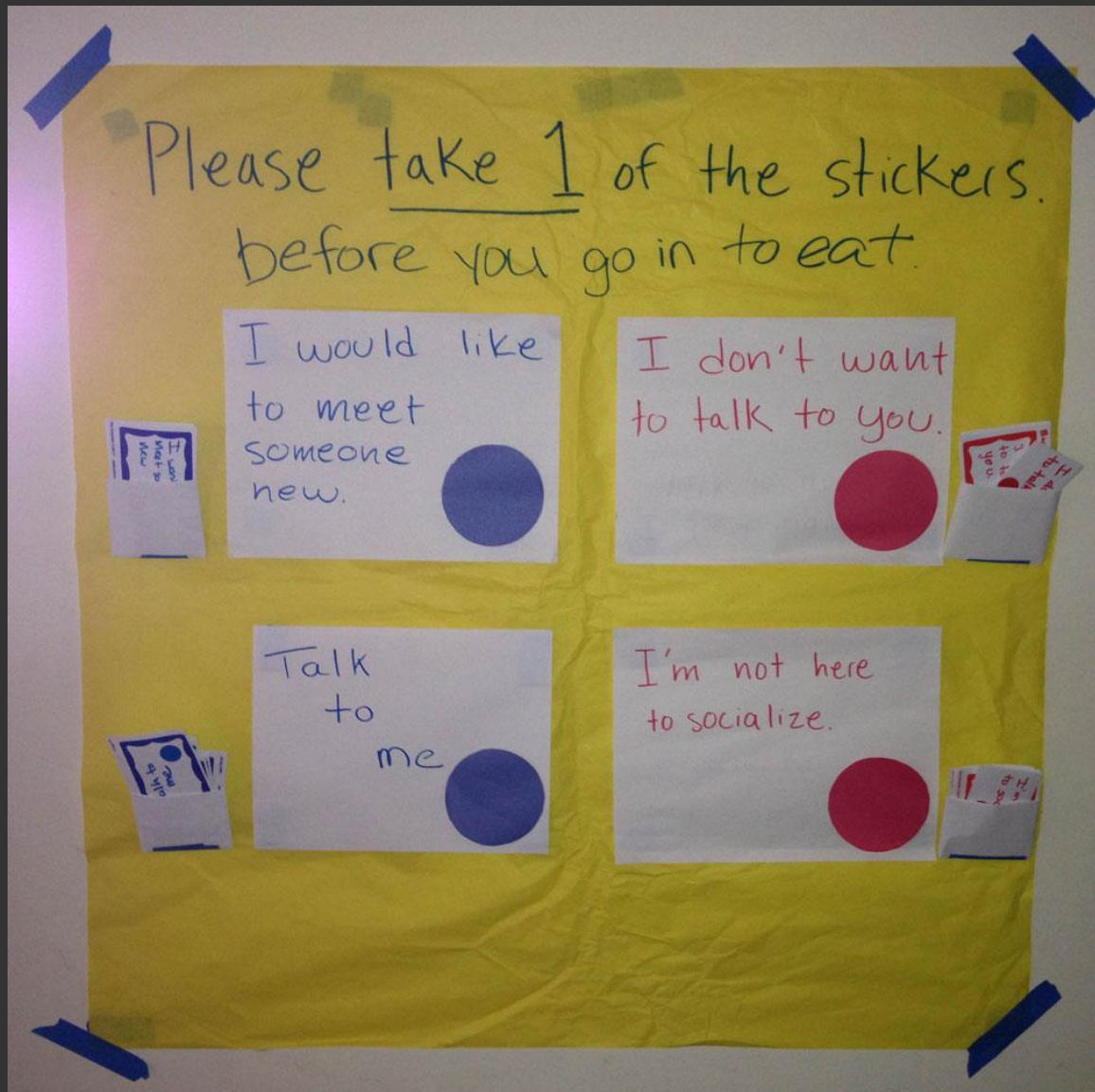
Design Thinking - Test

The critical design was to conduct a **social experiment** in one of the dining halls that consisted of a poster placed by the dining hall entrance instructing students going inside to eat to choose from one of four stickers and wear it during their meal.

The stickers were separated into two colors:

- **Blue**: the person wants to interact with someone they don't know.
- **Red**: the person does not want to interact with someone they don't know.

As students approached the entrance, they were asked to stop and pick a sticker that they would wear while eating until they left.



Goals

The goal of this experiment was not to see what happened in the dining hall after participants took the stickers. The goal was instead to make the time the participants spent deciding which sticker to choose to be a time of reflection on **themselves, their intentions, the social norm, and how others would perceive their decision.**

These four factors influenced the decision of which sticker to take by **challenging the social norms of public perception, shifting the contexts of the experience, making one's intentions – usually an invisible aspect – visible and available for reflection, and raising disturbing issues they usually would not think about.**

Results

The first implementation was at the Alice Cook House dining hall and the second implementation was at the Okenshields Dining Hall in Willard Straight Hall. For both iterations, the stickers were passed out for thirty minutes.

The following table shows the distribution of sticker selection per day and per color category:

Session I	Blue (Taken: 25/28)	Red (Taken: 11/20)
	"I'd like to meet someone new." (7/10) "I'm open to conversation." (18/18)	"I'm not here to socialize." (5/10) "I don't want to talk to you." (6/10)
Session II	Blue (Taken: 16/34)	Red (Taken: 25/40)
	"I'd like to meet someone new." (8/17) "Talk to me." (8/17)	"I'm not here to socialize." (20/27) "I don't want to talk to you." (5/13)

Findings

To evaluate the success of the design, we took down notes of what participants said while they were picking a sticker and provided a **feedback survey** on their way out of the dining hall.

Feedback Survey

1. Which sticker phrase did you choose?

2. Why did you choose this phrase?

3. How did the sticker affect your behavior?

4. Rate your dining experience today.

least enjoyable most enjoyable

1___ 2___ 3___ 4___ 5___



The results showcase two different sets of participants:

- Those who were **genuine** about their intentions.
- Those who were **not genuine** and masked their intentions.

Genuine

Some of the participants were **confident** and picked a sticker based on their current mood or whichever reflected their personality the most. These participants were **genuine about their intentions**.

Picked blue stickers because:

- "It best fit my mood"
- "I wouldn't have been opposed to sitting with a new face"
- "I want to meet new friends"

Picked red stickers because:

- "I wanted to eat quickly"
- "Studying"
- "I have a final in an hour"

Non-Genuine

Some participants were **reluctant** to grab a sticker that matched their intentions at the moment. This was only the case for those who would have normally picked a red sticker, but were intimidated by the social stigma that would come from wearing one.

The fear of a negative, antisocial, or rude perception from others made them **mask their intentions** with a blue sticker.

Picked a blue sticker instead of red because:

- "Don't want to be seen as rude."
- "It had the most "positive" phrasing"
- "Most positive & friendly"

Discussion of Findings

Human behaviors do not always support one's beliefs or values. I had hypothesized that increasing awareness about social behavior regarding stranger interactions would lead to a change in action.

This was disproved, as **people's actions were based on what felt comfortable and awareness was not enough to prompt any changes.**

Although people want to connect with each other, there are intangible **social constructs** that disable members of a community from the interactions they would benefit from.

Design Implications

By practicing techniques such as **non-design** and **critical design**, this study has illuminated the barriers that people face in their community and how they contribute to breaking or supporting those barriers.

Following this unconventional approach can allow designers an accessible way to be both **pioneering** and **empathetic** to their users in order to reach grounded **innovation**. By using critical design to identify when, where, and why this experience occurs, we have the fundamental elements that provide a platform for innovation in this design space.

Thank You!