# How Does Reliance On Technology Affect Perceived Happiness? Communication Methods and Connectedness Cynthia K Miller

#### **Description Summary**

What are the effects of opting for an email versus a face-to-face meeting? How do our feelings of connectedness change when we communicate virtually versus in-person methods? This project establishes a foundation for future research involving varying communication methods and how they can impact human emotional and psychological well-being.

#### **Abstract Summary**

Humans have been perfecting traditional in-person communication techniques for millions of years. However, we are currently in the early stages of adopting new virtual ways of interacting with one another that eliminates a lot of what we have learned to be successful communication techniques. As a result, we do not know the full range of consequences from choosing a virtual interaction versus a face-to-face one.

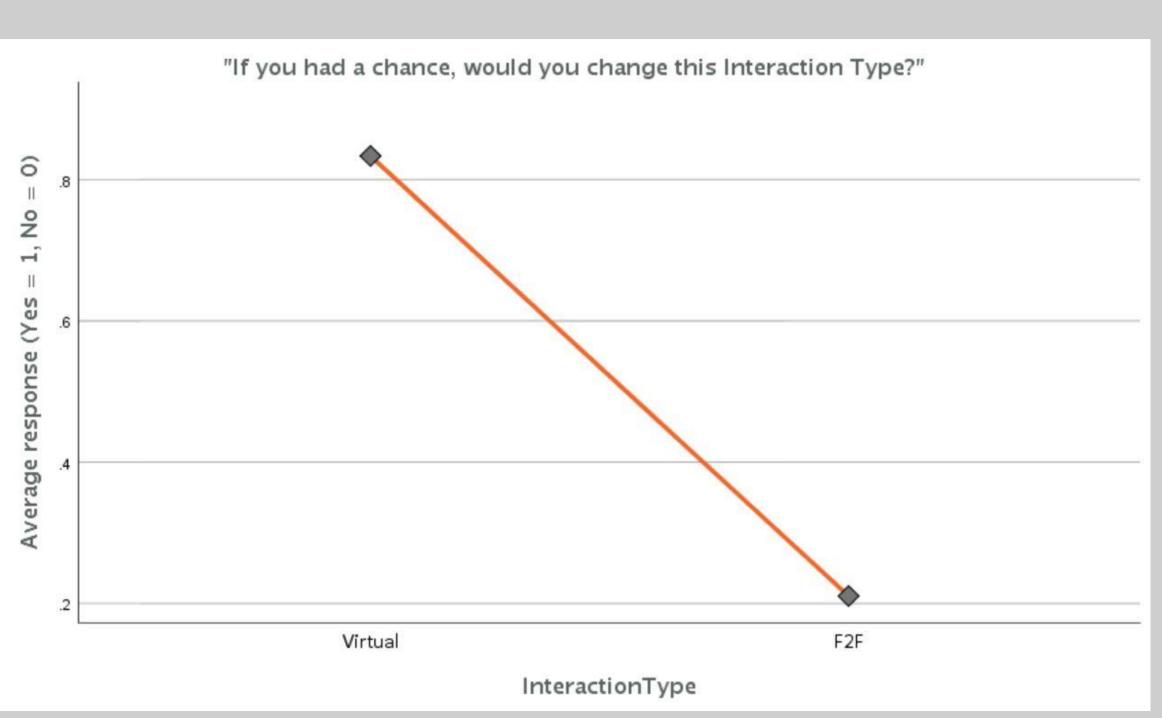
Until now, we have focused on making technology faster and more efficient. We are also careful about our choice of fonts, colors, and button placement. We have not yet considered how these technologies affect the emotional and social well-being of its consumers. This research and data analysis will establish a foundation for future discoveries that can be used to create better products, systems, technologies and methodologies that take into consideration these additional emotional and psychological aspects of the consumers who rely on them.

# Background

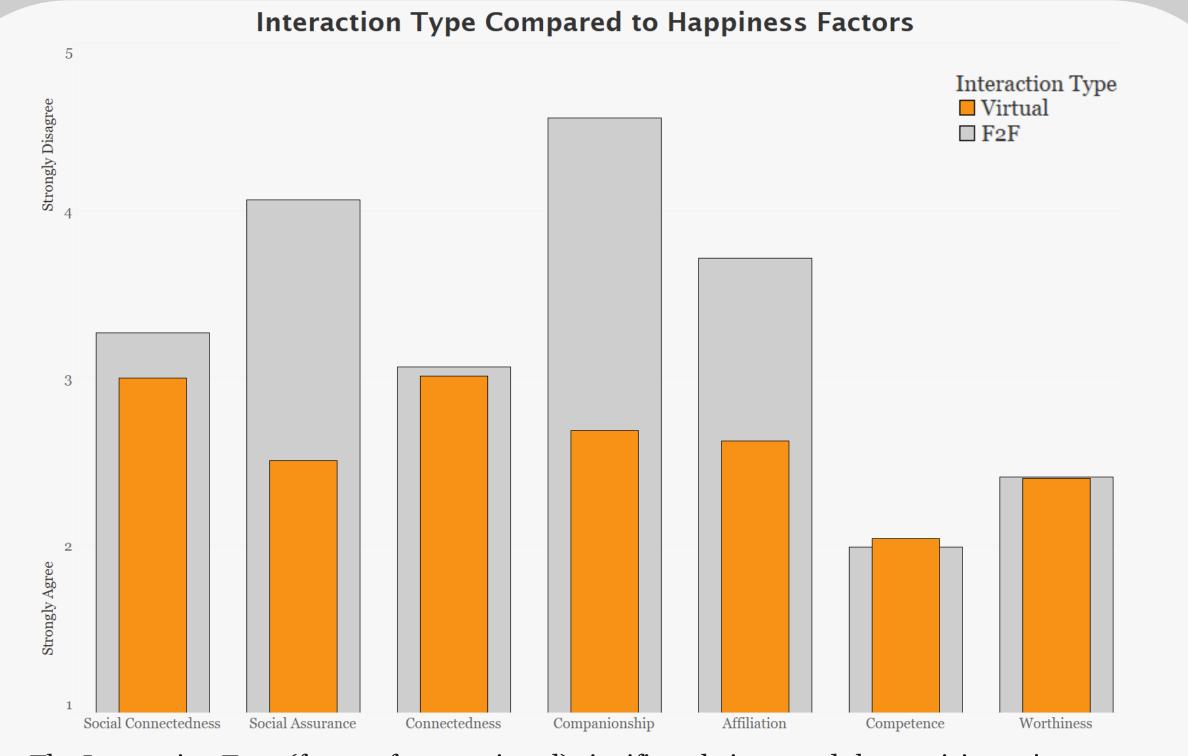
Survey response collection was the basis for this research project. Participants were asked to complete a questionnaire which involved reflecting on a past virtual or face-to-face experience that was frustrating in nature. The participants were then asked a series of follow-up questions related to the experience they shared. These questions were based on two validated scales representing elements of happiness (Lee & Robbins Belongingness/Social Connectedness and Social Assurance scale and Rosenberg's Self-esteem scale). Finally, the participants were asked another series of questions, based on the same two validated scales but these questions were from a general perspective and were not specific to the experience that the participant chose to share.

## Operationalized Research Questions

- 1. Does *Interaction Type* (face-to-face vs. virtual) impact an individual's preference for a different interaction type in hindsight?
- 2. What impact does *Interaction Type* (face-to-face vs. virtual) have on happiness as measured by Lee & Robins' Belongingness/Social Connectedness and Social Assurance scale and Rosenberg's Self-esteem scale?
- 3. Are there specific *Modes of Communication* that are more sensitive to changes in interaction type (face-to-face vs. virtual)?



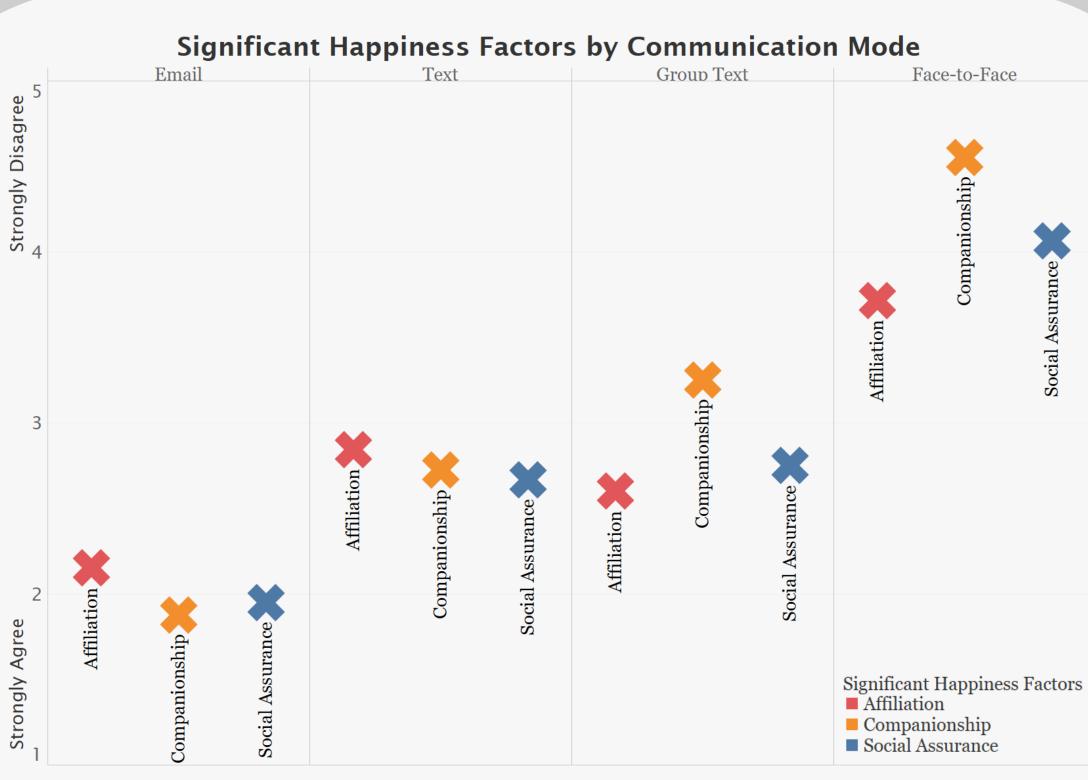
Interaction Type significantly impacted the participants' response to the question "If you had a chance to change this encounter to a face-to-face/virtual interaction, would you?"  $(\chi^2 (1, N = 43) = 16.70, p < .01)$ .



The Interaction Type (face-to-face vs. virtual) significantly impacted the participants' response to three of the belongingness/social connectedness groups: Companionship (F(1,41) = 25.48, p < 0.01), Affiliation (F(1,41) = 22.80, p < 0.01), and Social Assurance (F(1,41) = 35.60, p < 0.01).

## Demographics

- 42 total participants
  - 24 virtual scenario responses, 19 face-to-face scenario responses
  - Communication Mode responses: 4 Email, 9 Text, 4 Group Text, 6 Other (19 face-to-face)
  - 28 female responses, 15 male responses
  - 16 occupational therapy, 20 computer science, 7 psychology
    - 2 freshman, 14 sophomores, 7 juniors, 3 seniors, & 17 graduate students



Communication Modes significantly impacted participants' response to three Happiness Factors: F(1, 38) = 9.55, p < 0.01,  $\eta_p^2$  0.50.

#### Conclusions

- People prefer face to face encounters
- Happiness is influenced by the type of human communication (face-to-face vs. virtual)
  - However, not all factors of happiness are equal
  - Some factors are more sensitive to interaction type than others
- Virtual encounters leave participants feeling less connected
- Gender is not a factor in the differences in reported happiness or connectedness

