## **🧪 HCI Experiment Results Template**

**Team Members:** Maeve Conneely, Baris Yildirim, Ranvir Deshmukh

**Team Name:** StakeClock

**Prompt:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### **1️⃣ Research Question & Hypothesis**

**Research Question:**

**Hypothesis:** Participants receiving social and financial reminders (Group 3) will complete more tasks, with the just social reminders group (Group 2) completing slightly less, and the traditional digital only reminder group (Group 1) will complete the least.

### **2️⃣ Experimental Design**

**Independent Variable (IV):**Type of reminder (Digital, Social, Social + Financial)

**Dependent Variable (DV):**Primary:Number of reminders completed

Secondary: Reported anxiety, Likelihood to incorporate wellness reminders in the future

**Conditions Tested:**Condition 1: Digital Reminders (Group 1)

Condition 2: Social Reminders (Group 2)

Condition 3: Social + Financial Reminders (Group 3)

**Number of Participants:** 24 total

Group 1: 7

Group 2: 7

Group 3: 10

### **3️⃣Results & Data Analysis**

| **Condition** | **Average DV Measurement** | **Standard Deviation** | **Observation: % Reporting Anxiety** | **Observation: % Likely to Incorporate (Yes/Maybe)** |
| --- | --- | --- | --- | --- |
| Group 1 | 1.14 | 0.64 | Anxiety: 14.3% (1/7) | 71.4% (5/7) |
| Group 2 | 2.86 | 0.83 | 50.0% (3/6) | 50.0% (3/6) |
| Group 3 | 4.71 | 0.47 | 83.3% (5/6) | 100% (6/6) |

**T-Test:**

Group 1 vs. Group 2

P-value: 0.00028, Reject null-hypothesis

Group 1 vs. Group 3

P-value: 7.51 × 10⁻⁸, Reject null-hypothesis

**Key Findings:**Since the p-value is far below 0.05, the difference in average reminders completed between Group 1 and Group 3 is statistically significant. This strongly supports the conclusion that adding social and financial elements significantly increases task completion.

This result is also statistically significant, indicating that social reminders alone led to significantly more task completion than digital reminders. The effect is not as strong as with financial incentives, but it's still substantial.

### **4️⃣ User Feedback & Observations**

**Qualitative Insights:**  
Group 1 participants found digital reminders easy to ignore but less stressful.

Group 2 participants noted increased accountability from peers, but responses were mixed about pressure.

Group 3 participants felt a strong obligation to complete tasks, sometimes finding the combination of social and financial incentives overwhelming but motivating.

### **5️⃣ Discussion & Next Steps**

**Did the results support your hypothesis? Why or why not?**

Yes, results supported the hypothesis. Participants in the social and financial group completed more reminders and were more likely to incorporate wellness practices, though they also reported more anxiety.

**What would you change about your experiment if you ran it again?**

* Include a true control group with no reminders
* Expand sample size for better balance between groups

**Potential Design Changes Based on Findings:**

* Allow participants to personalize reminder frequency or modality
* Consider reducing reminder load in high-pressure groups
* Experiment with opt-in financial incentives

### **Prototype Reflection**

Participants responded consistently across groups, and the digital infrastructure for collecting reminders and feedback worked smoothly. Some participants experienced anxiety due to pressure, especially in Group 3. The prototype didn’t adapt to individual preferences or stress levels. We assumed all participants would respond similarly to reminders and incentives. We also assumed “Yes/No/Maybe” responses could capture complex feelings. The degree of anxiety reported in Group 3 was surprising, but those who felt pressure still said they’d continue using wellness reminders.

### **Test Reflection**

Group 1 did not have any interaction, while Group 2 and Group 3 showed high engagement despite higher stress. Stronger reminder types (especially financial) correlated with higher engagement, more task completion, and stronger emotional reactions. We concluded a clear trade-off: higher engagement often came with increased anxiety. Moderate interventions (Group 2) had mixed results. This resulted in a surprising observation: some said they valued the external pressure because it pushed them toward habits they otherwise wouldn’t build.

### **Final Synthesis**

In the next iteration of the prototype, I would make the reminders adaptive - starting small and escalating based on user feedback or behavior to better align with individual needs and reduce unnecessary stress. To improve the test design and ensure more reliable results, I would incorporate baseline and follow-up measures, use validated anxiety scales, and balance group sizes more evenly. One important lesson I learned about designing for humans is that while external pressure can effectively motivate action, it must be applied carefully to avoid emotional backlash. Designing for humans means considering not only behavior change but also the emotional experience that accompanies it.