**Client 25-002**

**Meeting: 1/28/25 (Tuesday) 9:30 AM**

**Phase: Design (No Data Collected)**

**Goal: Master Thesis**

**Department: Computer Graphics Technology**

**Deadline: 10/01/25**

**Background:**

* Client is a master’s student in CGT doing a master’s thesis project on how combining mandala creation with loving-kindness meditation(LKM) affects user engagement. LKM is a practice that involves sending goodwill and kindness to oneself and others.
* The client’s goal is to evaluate the effectiveness of cultural integration in digital meditation experiences through a pre and post survey experiment.

**Design & Variables Measured:**

Independent Variables:

* Meditation type (traditional LKM vs integrated mandala-LKM)
* Time (pre vs post intervention)

Dependent Variables:

* Mindfulness scores (FFMQ)
* Self-compassion scores (SCS-SF)
* Qualitative feedback

Five Facet Mindfulness Questionnaire (FFMQ): A 39-item scale assessing five facets of mindfulness.

Self-Compassion Scale - Short Form (SCS-SF): A 12-item scale measuring six components of self-compassion.

Qualitative feedback: Open-ended questions about the user’s experience with the application.

Experiment Details:

* A sample of 20-30 participants, representing a diverse range of meditation experience levels, will be recruited for user testing.

The testing will be conducted in two rounds:

Round 1:

* + Participants complete pre-test questionnaires (demographics, FFMQ, SCS-SF)
  + Participants engage in guided Loving-Kindness Meditation (without Mandala practices)
  + Post-session questionnaires (FFMQ, SCS-SF)

Round 2:

* + Participants use the developed application integrating Mandala practices with LKM
  + Post-session questionnaires (FFMQ, SCS-SF)
  + Brief qualitative feedback on the experiences:

**Research Question:**

* Does mandala integration significantly improve mindfulness scores compared to traditional LKM?
* Are there significant differences in self-compassion scores between traditional and integrated approaches?
* Do the integrated meditation is more engaging than the traditional

**Statistical Issues:**

* The client wants to know if the sample size calculation is valid and if n=20-30 entries are sufficient for detecting meaningful differences.
* The client does not know how to handle ordinal data from scales.
* What is the most appropriate test for comparing pre/post scores between conditions?

**Discussion Points / Questions to ask client:**

1. Has the survey been designed yet. If it has, what does it look like and what are the questions?
2. Where is the client collecting the data from, is the population homogeneous / heterogeneous?
3. What is the significance level / power / effect size for their power analysis calculations that they propose?
4. How much time will separate the pre and post experiment questionnaires?

**Dr. Gu & Dr. Craig notes:**