Workshop Agenda: EMA Cognition Research Lifecycle: Hosted by the CASCADE Lab

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**Workshop Overview:** This workshop is designed to provide a comprehensive overview and practical skills in the application of Ecological Momentary Assessment (EMA) within cognition research. EMA is a valuable research tool that captures real-time data on individuals' cognitive states and processes in their natural environments. This workshop will guide participants through the lifecycle of an EMA cognition research project, from conceptualization to data analysis and dissemination of findings. Our aim is to empower researchers with the knowledge and tools necessary to effectively implement EMA methodologies in their work, enhancing the ecological validity and impact of their research on cognition.

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| **Day 0: Tuesday, March 26, 2024 (Topic: Welcome to Happy Valley!)**   * Amber and Hailey Arriving in State College |
| **Day 1: Wednesday, March 27, 2024 (Topic: Foundations; Primer to EMA, Cognitive Assessment)**   * Morning   + 10:00am – 11:00am: What is human cognition? How is it measured? (Nelson Roque)     - Onboard into EMA study for data analysis purposes on Friday   + 11:00am – 11:30pm: Why EMA anyway?     - Martin Sliwinski?   + **11:30 – 11:45am: BREAK**   + 11:45am – 12:30pm: EMA Case Study Lightning Talks     - Alexa Allan     - Jose Diaz * Afternoon   + **12:30pm – 1:30pm: Group lunch (location TBD)**   + 1:30 – 2:00pm: From Idea to Protocol in Hands of Participants     - Considerations of burden, equity (Nelson Roque)   + 2:00 – 3:30 pm: Designing an EMA protocol     - Distinction between EMA, daily diary, and other methods     - Considerations for Timing, Intervals, sampling frames   + **3:30 – 4:00pm: BREAK**   + 4:00 – 5:30pm: Campus tour, Creamery visit     - Walking tour of Penn State. Get to know Penn State’s historical campus and amazing resources (and ice cream!) * Evening   + 5:00 – 7:00pm: Workshop attendee dinner     - **Location TBD** |
| **Day 2: Thursday, March 28, 2024 (Topic: Study Design, Planning, Implementation)**   * Morning   + 9:30am – 11am: Group study planning     - Break off into groups of 2 (or 3) and ideate/brainstorm a study idea that would be amenable to or enhanced by EMA data collection     - Write up a short description of the study and measures to be included   + **11:00 – 11:15am: BREAK**   + 11:15 - 1pm: Implementation of study into Metricwire     - Turn your idea into a protocol you can collect data with     - Hands-on workshop to create a study in Metricwire and experience the study from participant perspective * Afternoon   + **1:00pm – 2:00pm: Group lunch (location TBD)**   + 2:15– 5pm: Primer to grant writing (Nelson Roque, others from CHA)     - Intro to grant mechanisms     - What are expectations for writing group     - What are specific aims? |
| **Day 3: Friday, March 29, 2024 (Topic: Data Analysis and Dissemination)**   * Morning   + 10am – 11:45am: Intro to APIs and EMA Data Cleaning     - R and Python basics (load, manipulate data)     - Read data from APIs * Afternoon   + **12:00pm – 1:00pm: Group lunch (location TBD)**   + 1:15pm – 2:15pm: Building a data pipeline     - Essential components   + **2:15 – 2:30pm: BREAK**   + 2:30 – 4pm: Analyze workshop data     - Analyze data collected via workshop participants * Evening   + 5-7pm: Graduate student and faculty meet & greet     - Network and connect with faculty and graduate students in HDFS, BBH     - **Location TBD** |
| **Day 4: Saturday, March 30, 2024 (Topic: What’s on the Horizon?)**   * Morning   + 8am-12pm: Group discussion and breakfast at Sower’s Harvest     - group discussion about new horizons in EMA, mHealth Research * Afternoon: Flights depart |

**Dining Recommendations:**

* *Breakfast:* Sower’s Harvest, Websters, Irving’s
* *Lunch:* Irving’s, Yallah Taco, Juana’s (Venezuelan food)
* *Dinner:* SNAP Pizza, Federal Taphouse