



## Enhancing Psychology Research Through Advanced Communications Technology

### Purpose

There exists an uncertainty in the data of psychology research. The reliability of the clinically depressed population's retrospective recall of mood is unproven. The term "Retrospective recall of mood" refers to the ability to remember past emotional experiences. While the scientific literature shows exaggeration of positive affect with healthy individuals, the cognitive patterns in clinically depressed individuals are still unknown." IPRO 306 will help to assess whether the patterns of retrospective recall of mood found in clinically depressed individuals are different from those seen in the non-depressed clinical population.

The results of this study are both scientific and clinical in application. Advanced technology allows researchers to obtain instantaneous measurement of mood which can be used to determine the accuracy of a person's retrospective recall.

This is done by evaluating recall accuracy in the non-hospitalized clinically depressed population and comparing it to that of the non-clinical population.

### Goals

The specific objective of the Fall 2006 semester were as follows:

- Establish the materials and methods of conducting the study
- Obtain PDAs
- Program & troubleshoot software
- Conduct a pilot study
- Develop recruitment plan
- Commence study

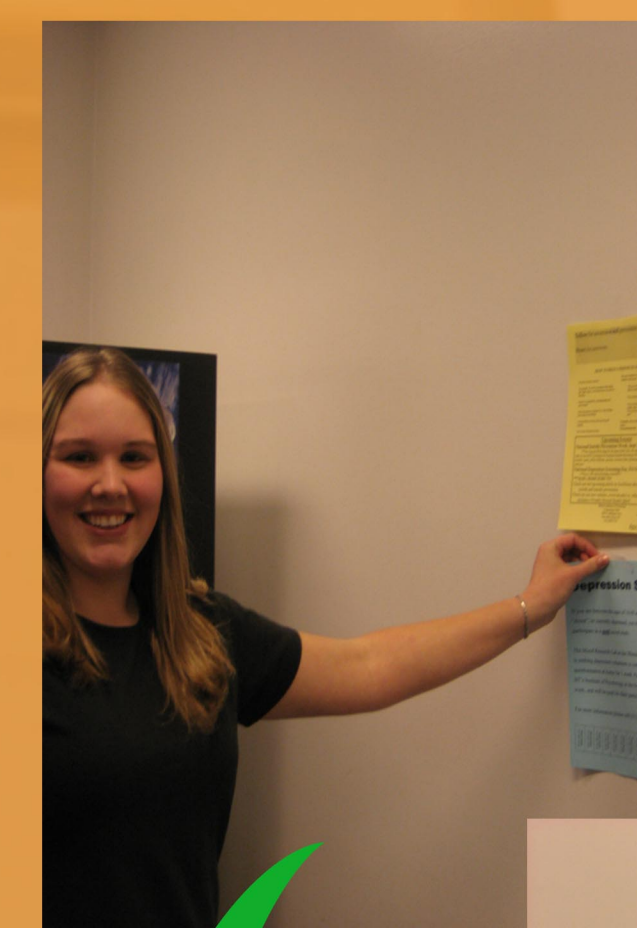
Data collection and analysis will extend into the second semester of this IPRO.

### Results

For this semester of our IPRO, a number of the goals we set for ourselves were accomplished:

- Created necessary subteams for every step in the process (see middle right)
- Obtained PDAs
- Successfully obtained and implemented ESP software
- Conducted an informative pilot study
- Developed an active and lasting recruitment plan
- Advertised for our study
- Screened our first volunteers
- Produced a number of participants
- Retrieved a small amount of data

## The Process



### Recruitment:

We posted advertising flyers of our study in clinics, various public places and online. Some fliers were labeled "Depression Study" and others were "Mood Study."



### Phone Screening:

The first step to determine whether a participant is eligible involves a phone screening. The research assistant call the participant and ask specific questions regarding past and current mental illness, then decides if they are eligible to participate in the study.



### Screening:

During their first visit at IIT, participants are given a screening conforming to Psychology's DSM-IV standards for depression to determine their eligibility. Upon acceptance, participants are given a thorough tutorial on the use of the PDA and are released.



### Study:

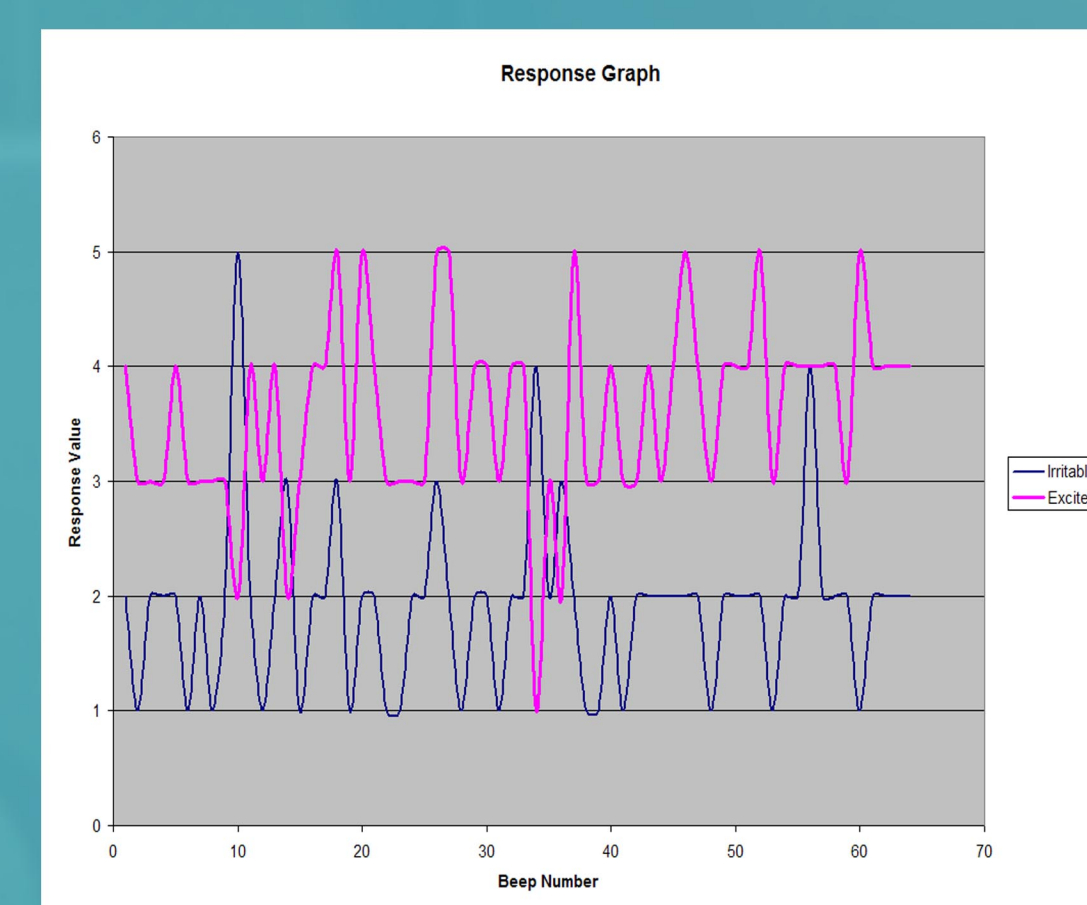
Upon the alert of the PDA the participants fill out short one-minute mood surveys 6-10 times per day for one week.



Finally, the week-long testing period is concluded and the participants return to IIT for a final affective recall test and return their PDAs.



Friendly IPRO members



**The Questions:** The Questions were derived directly from the Positive Affect/Negative Affect Survey (PANAS). Each question describes a different feeling or emotion. Among others, they include interested, distressed, excited, upset and guilty. The answer choices varied from "extremely" to "very slightly".

**The Data:** While the actual data downloaded from the PDA appears as a text file a graph can be created that shows how their responses changed with each beep. The graph to the left shows

## The Team

**Kevin Franke** - Project Manager  
Team involvement: Screening  
Major: Psychology

**Stephanie Walter**  
Team Leadership: Recruitment  
Team involvement: PDAs, Data Management, IPRO  
Poster/Abstract/Brochure  
Major: Aerospace & Mechanical Engineering

**Christopher Jones**  
Team Leadership: PDAs, Screening  
Team involvement: Recruitment, IPRO Presentation  
Major: Psychology

**Tarek Abou-Nemeh**  
Team involvement: Data Management, IPRO  
Poster/Abstract/Brochure/Reports  
Major: Biology

**Alice Jacob**  
Team Leadership: IPRO Presentation  
Team involvement: Screening, IPRO Reports  
Major: Biology

**Tina Chiu**  
Team Leadership: IPRO Reports  
Team involvement: Data Management  
Major: Psychology

**Vlad Vilenchik**  
Team involvement: PDAs, Data Management  
Major: Information Technology & Management

**Emma Sweikert**  
Team Leadership: Data Management  
Team involvement: Recruitment, IPRO Reports  
Major: Psychology

**Chelsea Miller**  
Team Leadership: IPRO Poster/Abstract/Brochure  
Team involvement: Screening, PDAs,  
Major: Architecture

**Dror Ben-Zeev M.S.** - Advisor

**Michael Young Ph. D.** - Advisor



**Ethical Concerns:** Since the study involves human participants, there are important ethical guidelines to follow. One way the team addressed this was by completing the Human Participant Protections Education for Research Teams provided by the National Cancer Institute. Also, every step of the process involves procedures to keep the participants identification and information confidential. Specific issues considered were including people of any race, gender or educational background and excluding any IIT affiliates