**Activity # 6 (Two days)**

Standard DA-2: The student will demonstrate through mathematical process an understanding of the design of statistical study

**Objective: We will research how the experimental study helps the researcher to make decisions and draw the conclusions from the samples and implement over the large groups.**

***Key words: Statistical study, Experimental study, explanatory variables, outcome variables, confounding variable, Dominant- Hand, Non Dominant Hand, first-hand, and second-hand.***

Introduction to activity:

On Thursday February 20th 2014, class 2016 of Dr. Valluru’s Statistics course will conduct an experiment to study the abilities of individuals to turn pennies over by using the dominant versus the non-dominant hand. We will randomly select the first hand used by generating random number (0 use dominant hand first, 1 use non-dominant hand first). All 31 participants of this Statistics class will be included in the experiment. For each individual, the length of time required for turning 10 pennies will be recorded using stop watch for each hand and the gender also will be recorded. We will publish this data in a spread sheet for the convenience of data collection to the class. Also we will use this data to determine if there is a difference in the times for your dominant hand or non-dominant hand. Also, the data will be used to determine if females turn the pennies over quicker than males and to determine whether there is an improvement in time from the first trial to second trail.

We will submit all the research work to Dr. Valluru at the end of this experiment.