

Experimental design

[Design](#)



Researchers have investigated that illiterate people are at high risk of poor health because they lack knowledge and understanding of medical information [1]. The low literacy adults have difficulty interpreting the medical information correctly and following the directions of medical information. This is a cause of concern looking at the 43% illiteracy rate in US. Lately there has been wide use of tablet devices and smartness in low literacy groups. There is an increase in smartened ownership and usage based on two cent Pew studies [2, 3] in low literacy groups.

Hence we decided to use smartened and tablet devices to increase health awareness in low literacy groups. We designed a pad app to help low literacy adults increase health awareness. METHODS To study the effect of Pad App, we recruited 81 low literacy adults. We greeted each participant, explained them the purpose of the experiment and obtained the informed consent at the beginning of the experiment. We started by Glenn a pre; health awareness test to all the participants at the new pad App which uses icons for users to input information about their food institution and exercise.

The pad app gives multimode visual and auditory feedback regarding user's choices about food and exercise. All the recruited participants used the pad App for few hours to understand their food and exercise choices. The participants were then given a post-health awareness test to gauge health awareness. We decided to use EX. factorial design: Gender (Men, Women) X Health Awareness (before and after using pad App) as it would accomplish the goal of finding the effectiveness of pad app in increasing the health awareness as well as in finding the effectiveness of pad app in men vs.. Women.

The hypothesis for this experimental study is as stated below: Ho - There is no difference in health awareness in low literacy adults after using pad app
Ha1 - There is increase in health awareness of low literacy adults after using the pad App
Ha2 - The pad app is more effective in increasing health awareness for women than men
There are two independent variables in this experiment, pad App which is task related variable and gender which is user related variable. The dependent variable in this experiment is health awareness, which we expect to change because of the independent variables.

We decided to use whiteness's design for this experiment as we assume that participant who is prone to be thorough (or careless) will likely display such behavior consistently across the experimental conditions. This is helpful because there won't be variability in data because of behavioral differences between participants. To counterbalance the learning effects of health awareness test, we will use a database of random questions so that same questions are not repeated in the test. 31 female and 50 male participants were recruited for the study.

We decided to use paired t-test to measure the effectiveness of pad app since it is a powerful test to find the differences when same individuals are measured before and after the treatment. We used independent samples t-test and between-subjects-design to gauge if pad app was more effective for women than men.