Esp study using zener cards

Designing an ESP Study using Zener cards

1. Introduction:

1a. The hypothesis being addressed here is that real psychics have special clairvoyant powers that non-psychics do not possess. 1b. In John Thomas's fact sheet, he provides that Joseph Rhine conducted ESP experiments and found evidence-supporting ESP but other psychologists were unable to repeat similar results. Another experiment provided in John Thomas's fact sheet was about the research on random-number generators. These generators have been used in ESP research to test psychokinetic abilities. The problem with these experiments, according to Thomas, is that a lot of these experiments result in many chance expectations and the bias in the experiment is not measured nor taken into account in the experiments. These experiments are also never scientifically acceptable. Tom Harris provides that some of the ESP claims may be indeed fraudulent and some who claim to have ESP may be out for monetary gain. According to Harris's article, no one really has been able to prove the existence of ESP in a supervised demonstration.

2. Method:

2a. (i)These individuals will be college students, male and female, ranging from age 18-24. The target populations would include self-proclaimed psychics and the self-proclaimed non-psychics. I would not sample the populations randomly. The purpose of this experiment is to separate the psychics from the non-psychics and another reason why random sampling will not take place in this experiment is because we do not really know if psychics really exist.

(ii) There will be 10 individuals in each group. All twenty individuals will be asked to fill out a “ psychic IQ” questionnaire. The individuals that score low on the questionnaire will be placed in the non-psychics group (control group) and the score relatively high on the questionnaire will be placed in the psychic group (experimental group).

(iii) Race, gender or ethnicity will not be controlled or matched in this experiment. I would not use random assignment of participants to select participants. We need to separate the real psychics from the non-psychics (purpose of using questionnaire) and that is basically the purpose of the experiment.

2b. The materials in the experiment will include 40 decks of Zener Cards so that when cards become marked in any manner to possibly give away their identity, a new pack will be opened. A mechanical card shuffler will also be present to shuffle the cards at random before and after subjects. It will also be kept out of sight of the subjects.

2c. In order to control guessing, the subjects will be instructed to produce a response that comes to mind within about 7 seconds. In order to control experimenter knowledge, the experimenter will be trained to control any body movement, especially facial expressions that give away a clue or an answer. In order to control card tricks, experimenter should not be able to talk at all, the experimenter would not be able to see the symbols on the cards, the experimenter should not know the subjects at all, and the experimenter must use the mechanical card shuffler provided in this experiment and especially unpack a new deck of cards when any of the

cards become somehow marked or have been in some way recognizable to the subject. In order to control poor shuffling, the deck of cards should be shuffled before and after use; before a subject enters the room the cards must be shuffled. The mechanical card shuffler must be properly used of course. 2d. The independent variable is the day-part of testing; such as the time when the experiment took place. The dependent variable is the % correct score.

3. Results:

3a. I would perform a t-test that compares mean correct % score between subject and control groups for each day-part and the totals for each group. The difference between groups will be determined through the use of statistical programs to obtain p-scores. For further analysis, I would calculate the variance within groups through an ANOVA, which is analysis of variance between groups. 3b. The standard deviation will be calculated for each group for each day-parts and total, from there we can calculate variance. For further analysis, I would calculate the variance within groups through an ANOVA, which is analysis of variance between groups. 3c. Statistical significance is the probability that the difference between groups found is substantially related to factors other than chance. If a p-score is < 0. 05, then the difference between groups is more probably statistically significant. A p-score < 0. 1 is more highly significant, and so on.

4. Conclusions:

4a. Dr. Venkman would not be correct in concluding that both psychics and non-psychics identify Zener cards better than would be expected by chance. Testing only a small number in each group would not be using a sufficient

number in order to determine this. The variance among the small number of subjects would be too high in possibility. For example, a few could score 100% while the rest can score significantly lower. 4b. It is probably due to the small number of subjects in the control group with chance involved. 4c. Examining 10 subjects in each group are insufficient to draw any conclusions or to state anything new about the reality of clairvoyance. The only fact in evidence is that anyone can be correct 5% of the time. 4d. A more appropriate sample size must first be determined, based on results and variances from previous related research. Within the larger sample/group sizes, between-group matching can occur for race, age, and gender. Variances in day testing; could also begin late-night testing and draw inferences from it.