One-sample t-tests

Psychology

Running Head: One Sample t-Test One Sample t-Test: A Case Study goes here Professional Specialization of your Introduction

Inferential statistics is the branch of statistical studies in which we work out the variation of data (or sample data) hypothetically. To test the variability of data inferential statisticians have introduced several methods like z-series and t-tests. However, t-Test is simpler in the sense that it does not require much calculations and availability of complex statistical numbers like standard deviation of a population. t-Test can deduce the depth of variation in the dataset based on a simple mean value. So, in essence z-series and t-Test are same but used in different conditions, z-series is used when standard deviation is known for a dataset otherwise t-Test can help us out in assessing the variation of dataset.

t-Test for News Based TV Shows

In this case study we are provided with the result of survey which proclaims a mean value of eight shows being watch by the national population and we are required formulate our opinion to the hypothesize a value that represents the number of shows being watched per week by our neighborhood and perform one-sample t-Test on this data.

As the first step, we formulate our opinion on our neighborhood, and hypothesize two values, first Ha assumes that there will be greater number of news based TV shows being watched in our neighborhood than the mean value of eight TV Shows and second H0 assumes that there will be an equal number of news based TV shows being watched in our neighborhood. Secondly, the random roll of a pair of dice has resulted in 7, 11, 9, which gives us the value of 9. 0 which represents the number of news based TV shows being actually watched in our neighborhood. Based on these finding

and without performing any further calculations for the one-sample t-Test following interpretations were gathered;

a) The value of 9. 0 suggests that there may be a close relationship between our neighborhood and national trend of watching news based TV Shows. The value satisfy our hypothesis Ha .

b) The value of 9. 0 also suggests that there may be only fewer chances of an occurrence of H0 or we may say it unlikely that a lesser number of new based TV Shows are being watch in our neighborhood.

c) There is a chance of having a lower value of in another instance of roll of dice but it is equally probable to have even further rise in the value. So the sample gathered by the roll of dice for three times sufficiently represents our neighborhood population.

d) We can further strengthen our hypothesis only through complete calculation of the one-sample t-Test. Because it is important to have tobt and tcrit to determine whether or not our sample mean lies in the region of rejection. If tobt is greater then tcrit we can deduce that the data collected through roll of dice does not represent true value for our neighborhood.