



O N L I N E

L E A R N I N G

Quantitative Data Analysis: Inferential Statistic

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INFERENCE STATISTIC

- Inferential statistics aims to draw conclusions about the population from the sample at hand.
- The probability that an observed difference between groups is a dependable one or one that might have happened by chance in this study



INFERENTIAL STATISTIC

- Involve test of significance
- Hypothesis
 - a) Null hypothesis
 - b) Alternative Hypothesis



NULL HYPHOTHESIS

- There is no actual relationship / differences between the variables



ALTERNATIVE HYPHOTHESIS

- **There is relationship / differences between the variables**



TYPE I ERROR

- Rejection of a true null hypothesis is labeled as Type 1 error
- The result shows there nothing when there is something



TYPE II ERROR

- Retention of false null hypothesis is labeled as Type II error
- The result shows there is something when there is nothing there



t-test

- The t-test assesses whether the means of two groups are *statistically* different from each other.
- This analysis is appropriate whenever you want to compare the means of two groups.



ANOVA

- **The Analysis Of Variance, popularly known as the ANOVA**
- **It can be used in cases where there are more than two groups.**
- **For examples, we want to investigate is there any sig differences towards the students achievement across their types of learning style.**



THE END