Name that analysis...

<table>
<thead>
<tr>
<th>TYPES OF VARIABLES</th>
<th>LEVELS OF MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable</td>
<td>Nominal</td>
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<tr>
<td></td>
<td>Nominal</td>
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<tr>
<td>Dependent Variable</td>
<td>Nominal</td>
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<tr>
<td></td>
<td>Ratio/interval</td>
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<tr>
<td>Statistical analysis?</td>
<td>___________?</td>
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<td>___________?</td>
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ScWk 242 Week 7 Spring 2008
**t-tests**

- **t–test:** independent variable is nominal, but dependent variable is ratio/interval.
- The *t*–test compares means
  - **Independent sample *t*-test** Comparing the means of two independently chosen samples
    - \( H_A : \) SJSU students receiving post-grad test preparation will score higher in the LCSW exam compared to those SJSU students who did not receive post-grad test preparation
  - **Dependent (or Paired) sample *t*-test** Comparing the means of two related samples, or more typically, the same sample measured twice
    - \( H_A : \) LCSW test preparation will result in reduced anxiety as measured by a ratio level anxiety scale score, comparing scores pre- and post- test preparation
  - **One sample *t*-test** Comparing a sample mean to that already known in the population
    - \( H_A : \) SJSU graduates will score higher in the LCSW exam than the MSW students statewide
8 steps to conducting $t$-tests: 
Independent sample $t$-test

• $H_A$: SJSU students receiving post-grad test preparation will score higher in the LCSW exam compared to those SJSU students who did not receive post-grad test preparation

1. What is the independent variable, and its level of measurement? 
________________

2. What is the dependent variable, and its level of measurement? 
________________

3. What’s the Null Hypothesis? ____________

4. Is the alternative hypothesis stated above one-tailed or two-tailed? 
________________

5. Statistical test & alpha level: Independent sample $t$-test, alpha = __

6. Review SPSS table of results

7. Describe results & decision to accept or reject Null

8. Discuss results
8 steps to conducting \( t \)-tests: Dependent (paired) sample \( t \)-test

- \( H_A \): LCSW test preparation will result in reduced anxiety as measured by a ratio level anxiety scale score, comparing scores pre- and post-test preparation

1. What is the independent variable, and its level of measurement? ______________

2. What is the dependent variable, and its level of measurement? ______________

3. What's the Null Hypothesis? ____________

4. Is the alternative hypothesis stated above one-tailed or two-tailed? ______________

5. Statistical test & alpha level: Dependent sample \( t \)-test, alpha = ___

6. Review SPSS table of results

7. Describe results & decision to accept or reject Null

8. Discuss results
8 steps to conducting \( t \)-tests: One sample \( t \)-test

- **\( H_A \):** SJSU graduates will score higher in the LCSW exam than the MSW students statewide

  1. What is the independent variable, and its level of measurement? *Sample vs. population (nominal)* Note: we’re still only talking about *one sample*
  
  2. What is the dependent variable, and its level of measurement? ________________
  
  3. What’s the Null Hypothesis? ________
  
  4. Is the alternative hypothesis stated above one-tailed or two-tailed?
  
  5. Statistical test & alpha level: One-sample \( t \)-test, alpha = .05
  
  6. Review SPSS table of results
  
  7. Describe results & decision to accept or reject Null
  
  8. Discuss results