**Quantitative Analysis Report: Nonparametric Tests Assignment Instructions**

**Overview**

You will take part in several data analysis assignments in which you will develop a report using tables and figures from the IBM SPSS® output file of your results. Using the resources and readings provided, you will interpret these results and test the hypotheses and writeup these interpretations. As doctoral students, your assignments are expected to follow the principles of high-quality scientific standards and promote knowledge and understanding in the field of public administration. You should apply a rigorous and critical assessment of a body of theory and empirical research, articulating what is known about the phenomenon and ways to advance research about the topic under review. Research syntheses should identify significant variables, a systematic and reproducible search strategy, and a clear framework for studies included in the larger analysis.

**Instructions**

* Copy and paste all tables and figures into a Word document and format the results in **APA current edition**.
* Interpret your results.
* Final report should be formatted using **APA current edition**, and in a Word document.
* 4-5 double-spaced pages of content in length (not counting the title page or references).
* Manuscripts should not be written in first person (“I”).
* All material should be 12-point, Times New Roman type, double-spaced with margins of one inch.
* All manuscripts should be clearly and concisely written, with technical material set off. Please do not use jargon, slang, idioms, colloquialisms, or bureaucratese. Use acronyms sparingly and spell them out the first time you use them. Please do not construct acronyms from phrases you repeat frequently in the text.

This assignment has two parts and uses the 2018 Federal Employee Viewpoint Survey (*Federal Employee Survey 2018. sav*). Load the data set into SPSS.

1. **Address the following research question using a nonparametric *Mann Whitney U* test:**

*RQ 6: Is there a significant difference in the agreement as to whether the federal agency supervisor provides the employee with opportunities to demonstrate his or her leadership skills (Q43) based on the sex of the employee (DSEX)?*

* H06: There is no statistically significant difference in the agreement as to whether the federal agency supervisor provides the employee with opportunities to demonstrate his or her leadership skills (*Q43*) based on the sex of the employee (*DSEX*).
* Ha6: There is a statistically significant difference in the agreement as to whether the federal agency supervisor provides the employee with opportunities to demonstrate his or her leadership skills (*Q43*) based on the sex of the employee (*DSEX*).

1. Now, perform a nonparametric *Mann Whitney U* test with:
   * *sex (DSEX)* as your independent variable groups (male=1 and female=2) and
   * *Q43* as your dependent variable.
2. Use Cronk and provided resources to interpret the results of the Mann Whitney U test.
3. Click on *Analyze*, *Nonparametric Tests*, *Independent Samples*.
4. Click on use *Compare Medians*. This is because the dependent variable *Q43* is ordinal and not normally distributed.
5. Move *Q43* to test Fields box and *MSEX* to Groups box.
6. Then, Click on *Run* arrow.
7. The Hypothesis Summary appears. Double click on it and you get the graph and table as well on auxiliary view.
8. **Address the following research question using a *Kruskal Wallis H test*:**

*RQ 7: Is there a significant difference in the agreement as to whether the federal agency supervisor provides the employee with opportunities to demonstrate his or her leadership skills (Q43) based on the education level of the employee (DEDUC)?*

* H07: There is no statistically significant difference in the agreement as to whether the federal agency supervisor provides the employee with opportunities to demonstrate his or her leadership skills (*Q43*) based on the education level of the employee (*DEDUC*).
* Ha7: There is a statistically significant difference in the agreement as to whether the federal agency supervisor provides the employee with opportunities to demonstrate his or her leadership skills (*Q43*) based on the education level of the employee (*DEDUC*).

1. Now, perform a nonparametric *Kruskal Wallis H* test with:
   * *education level of the employee* (*DEDUC*) as your independent variable groups (Less than Bachelor’s=1, Bachelor’s=2, and Beyond Bachelor’s=3) and
   * *Q43* as your dependent variable.
2. Use Cronk and provided resources to interpret the results of the *Kruskal Wallis H* test.
3. Click on *Analyze*, *Nonparametric Tests*, *Independent Samples*.
4. Click on use *Compare Medians*. This is because the dependent variable *Q43* is ordinal and not normally distributed.
5. Move *Q43* to test Fields box and *MSEX* to Groups box.
6. Select *Settings* tab.
7. In the Settings tab, check Kruskal Wallis test.
8. Then, click on the Run arrow.
9. The Hypothesis Summary appears. Double click on it and you get the graph and table as well on auxiliary view.

Note: Your assignment will be checked for originality via the Turnitin plagiarism tool.