Statistics for Social Research III

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**Assignment #4 – Course Learning Journal**

The journal is a written reflection of your learning journey while working in each course. The

Learning Journal integrates the essential elements of the course within your professional field of

interest. The objective of the course journal is to produce a degree of acculturation, integrating

new ideas into your existing knowledge of each course. This is also an opportunity to

communicate with your professor insights gained as a result of the course. The course

learning journal should be 3-5 pages in length and should include the following sections:

1. Introduction –Summarize the intent of the course, how it fits into the graduate

program as a whole, and the relevance of its position in the curricular sequence.

1. Personal Growth - Describe your personal growth–how the course stretched or

challenged you– and your progress in mastery of course content and skills during

the week and through subsequent readings – what new insights or skills you gained.

1. Reflective Entry - Add a reflective entry that describes the contextualization (or

adaptation and relevant application) of new learning in your professional field.

What questions or concerns have surfaced about your professional field as a result

of your study?

1. Conclusion – Evaluate the effectiveness of the course in meeting your professional,

religious, and educational goals.

**Introduction –**

Statistics for Social Research III is the most advanced statistics course offered by Omega Graduate School (OGS) to the PhD student before delving fully into the development of the dissertation. It utilizes foundational principles of statistics as a framework for application of more complex procedures needed to support the key elements of research methodology. Lessons learned prepares the student for proper handling and processing of data to produce outputs needed to adequately test hypotheses and solve research problems.

Essential elements of the course include a base understanding of both descriptive and inferential statistics with the intent to assess population variables through appropriate statistical analysis techniques. The course also introduces the student to the OGS, PSSR (Practical Statistics for Social Research) software, by providing a video tutorial and practical case examples of research scenarios.

Course content provides technical application for the graduate program as the student applies theory and coursework to research methodologies. Stats III allows the graduate student to advance from descriptive handling of information to a more complex and sophisticated level of study. It is appropriately positioned after the main coursework and in sequence with its complementary course, Research Design and Methodology III. Both courses equip the student and set the stage for management of the dissertation prospectus and proposal.

**Personal Growth -**

The course helped me to review fundamental topics that were taught in earlier statistics classes. It also provided adequate focus on the processing of quantitative designs, which are in line with my chosen area of study. The assignments reinforced my understanding of randomized and non-randomized sampling and challenged me to better understand correlational statistical procedures which is the type of procedure that I intend to utilize for my dissertation.

All assignments progressed logically to advance my understanding of ANOVA as a key statistical tool to evaluate mean differences and two or more populations using sample data. The F-Statistic was also introduced as essential in the testing of hypotheses as a part of this process.

The PSSR statistical software package was a major highlight in the coursework. Assignments guided me in not only understanding the software but using it in different scenarios, from simple quasi-experimental split-group cases through to more advanced ANOVA techniques.

Conducting these statistical tests showed the usefulness and agility of the PSSR software. It allowed me to try different procedures and scenarios in a manner that will accelerate the learning and decision making process. The software also demonstrated appropriate use for both simple and more complex statistical procedures. It also demonstrated outputs that were quite impressive in providing all of the major descriptive and statistical results.

Dr Reichard’s video tutorial was exceptional in explaining the various features of the software. Now that the course is completed, I am eager to utilize this tool in my current dissertation research as well as for future projects. The PSSR is a statistical masterpiece that, I’m sure, will continue to gain notoriety in the social research world.

The course also presented new insights into post-hoc procedures and their importance in hypotheses testing. These actions were deemed valuable because it provided additional justification or assessment of findings. The post-hoc procedure will, therefore, strengthen the testing of my hypotheses by providing more specific analysis to findings and assessments.

Assignments also pushed me to practice the development of research problems, purpose statements, and research questions. They also helped me to utilize cases to practice the interpretation of outputs/results.

**Reflective Entry -**

The advent of advanced technical software and AI support has left many social scientists lazy and negligent of the intricacies and purpose of statistical steps and procedures. This Statistics for Social Research III course did not rush into advanced procedures but showed the importance and justification for each major statistical step. I was therefore left with an appreciation for new technology but also an understanding of purpose and intent. This will prove valuable when defending my choice of statistical design, and debating other possible options.

I also got a sound understanding of experimental and quasi-experimental designs. This is essential in my professional field because many social researchers select the use of quasi-experimental designs. These designs lack random assignment of participants and are often used when true experiments are not feasible for ethical or practical reasons.

The ANOVA technique is also important in my professional field. The coursework laid out fundamentals of effectiveness of use being when more than two groups are compared and applied to a dependent variable. ANOVA also gives the social researcher the flexibility to measure the effects of each independent variable or the interacting effects of all variables. This provides the researcher with a much greater ability to draw more information from the outputs.

Post-hoc tests were also shown to be useful as a backdrop of the ANOVA results*.* For social research studies, this feature will prove very useful as more researchers would want to have more than two independent variables in the study and would also want to know more details about their relatedness.

**Conclusion –**

Statistics for Social Research III enhanced my understanding of statistical procedures and allowed me to approach the research process with more confidence. It improved my ability to select the appropriate statistical procedure for my dissertation, and prepare to appropriately process sample data.

A focus on correlational procedures was essential for me because my intention is to apply this statistical method in my upcoming research. It was important for me to be able to understand correlation, and its contrasts to experimental research. For my study, I will be looking for an alternative to the Pearson’s correlation as my process would be more aligned to a non-parametric design.

As it relates to my Christian witness and educational reputation, features of reliability and validity were discussed and remain critical for me to consider at this stage in the development of my research process. It would be unfortunate for me to carry out data gathering and analysis, only to realize that the instrument I used was not considered reliable. This would undoubtedly undermine the findings of my study.