**Course Learning Journal**

**COM 968-32 : Statistics for Social Research I**

**(Fall 2024, Sub-term A)**

**Assignment No. 4**

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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.

2. 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.

3. 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?

4. Conclusion – Evaluate the effectiveness of the course in meeting your professional, religious, and educational goals.

**1) Introduction –**Summarize the intent of the course, how it fits into the graduate program, and the relevance of its position in the curricular sequence.

**Introduction**

The Course Learning Journal (CLJ) is a diary of learning, lectures, and research studies in COM 968-32 - Statistics for Social Research 1, (SSR). SSR learning is a hybrid of two virtual learning models of learning namely, the Synchronous (virtual class format) and the Asynchronous (self-paced learning). The SSR consists of four levels of Assignment research studies namely Assignment #1: Discussion Questions, Assignment #2: Developmental Reading Log, Assignment #3: Instructor Assignment - Practical Statistics, Assignment #4: Core Learning Journal. The Course Learning Journal, (CLJ) presents a summary folder of what the writer has learned, observed, and researched during virtual classes, group interactions, and personal research studies. CLJ reveals that the Statistics for Social Research studies are modeled along with the Socrates model of critical, logical and mathematical thinking in response to philosophical and research questions demanding relevant, creative, and innovative answers based on qualitative, and inductive, quantitative and deductive analysis on a broad scale.

Statistical principles and practice are quite relevant in modern academic and professional landscape. This makes statistics study fit squarely in the students’ leaning and practice skills’ expectations. Students learn to use descriptive and inferential statistics (Hadfield, et al., 2022; Henry, et al., 2023), and how to analyze populations through sampling (Tao, et al., 2022) and statistical analysis. The seminar methodology includes instructions on the use of the PSPP™ statistical software package, Microsoft Word™, and Microsoft Excel (Reichard & Taladay, 2024).

The “Socratic questioning is used to enhance the process of guided discovery sessions.- The approach relies on integrating the research evidence" (Overholser & Beale, 2023). The CLJ is a “written reflection of the student’s learning journey while working in each course. It is an integration of the essential elements of the course within one’s professional field of interest; to produce a degree of acculturation, -to communicate with the professor virtually, consistent with the tutorial methodology, and to express insights gained” (OGS.edu, 2023).

Modern statistics and mathematical deductions are inseparable from such professions as space travel, astronomy, even the once rumored and feared Artificial intelligence. AI technology is gradually permeating the world of computer programming and high-tech industries. The fast-track accelerated degrees in applied statistical methodologies must catch up with them. Some top-class leaders such as Jeff Bezos, Elon Musk, Richard Branson and Bill Gates’ hi-tech enterprises seem to blaze the trails for many intellectuals (Jones, 2023; Kouzes & Posner, 2023) among the industrial and hi-tech operators. The AI hi-tech in automation cars, aircrafts and submarines are inputs and output systems of creativity powered by specific computer programs and algorithms.

These supposed interventions are not beyond human, intellectual control, as many are insinuating, like the exaggerated fears about space travels, 5-G intercom system alarms that erupted in passions of emotions, rumor-mongering some time ago. The space travel seems to benefit from the AI advanced technology, already in hi-tech statistics, calculus and space robotics engineering.

**2) 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.

The student’s growth from statistics, past and present are inspiring. This student was a lecturer in statistics overseas several years ago. The comparative classical and modern statistical precepts, coupled with the new trends in statistical applications have helped to strengthen his resolve to engage in transformational statistics which are diversified in broad inductive, inferential and deductive statistics. At some point, applied statistics was likened to quantum physics and econometrics of the 90s in classical levels of learning, and they have been leveraged in in multidimensional structures (Privitera, 2024; Ravid, 2024; Reichard, J. (2024), in modern statistical principles and practice in diverse professions.

Modern Statistics is popularly known as the language of science and research (Reichard, 2024; Privitera, 2024; Ravid, 2024), it equips this student to conduct qualitative and quantitative social research (Drew, 2023; Fithian, 2023), and to communicate through the language of statistical data and information as expressed in Statistics for Social Research, SSR assignments, 1, 2 and 3. It is an added advantage to learn the theories, principles and practice of descriptive and inferential statistics and how to analyze populations through sampling and statistical analysis on a broader scale. The seminar methodology includes instructions on using the Practical Statistics for Social Research (PSPPTM statistical software package), Microsoft Word and Microsoft Excel (OGS.Edu & Taladay, 2024).

The student will not shy away from statistical computations, they have been simplified by the use of new adaptation models statistical software tools (Reichard, 2024), and the resources are vital in conducting research design methodology and dissertation foundations. This will be a welcome sign to many students who will find the software approach useful in their sophisticated working systems and environments.

**3. 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 because of your study?

Some reflective entry experiences are gathered from the combination of Asymmetric and Symmetric formats of virtual lectures from OGS professors. Modern statistics is more of study and practice based. The participatory learning style and the group interactions with the professors and fellow students also make some creative, innovative impact on the student. In addition, any topics discussed or given as assignments are adequately analyzed either individually, or as a group and given critical assessment and evaluation individually during assignment-study research.

Intriguing is how statistics cut across several social science and science disciplines for example, in **figure 3.1,** the mean deviation is very popular and has practical usefulness in economics, commerce, and actuarial sciences. Standard Deviation is the positive square root of the arithmetic mean of the squares of the deviations of a given observation of their arithmetic mean. Standard deviation is practically more useful in statistical analysis than mean deviation (Bhardwaj, &. Sharma, 2013).

**Figure 3.1**



 This student recognizes that the digital landscape, the intersection of marketing and statistics has become more significant than ever, 60% of marketers believe that data-driven marketing is crucial to the success of their strategies. This precision leads to higher engagement rates and improved ROI. Data provides valuable insights into customer preferences and trends, enabling marketers to adapt their strategies quickly and effectively (Chakraborty, 2024). Modern organizations incorporate digital statistical applications in their operational services. This is through designated software programs. Many academia and modern organizations train on statistical software (Hadfield et al., 2022; Drew, 2023), to facilitate their services and operations.

Some of the concerns are the use of digital statistical soft wares and tools to accelerate the complex statistical computations. Additional training on statistical software will be required to engage and facilitate more complex research studies, either applicable as computerized software or standalone tool or gadgets now and the future.

 **4. Conclusion** – Evaluate the effectiveness of the course in meeting your professional, religious, and educational goals.

 Previous and current studies show that statistical applications in a research study serve a specific purpose and offer solutions (Reichard, 2024), to issues of concern like consumer price index, price inflation, government spending, and business subsidies. Other areas of intervention and application are import, export quotas, academic enrollments, unemployment, immigration, study demographics., etc. Statistics permeate these areas of business, aero-space engineering and other high-tech sciences. Statistics for Social Research 1, SSR, tend to meet the student’s professional knowledge and skill expectations, (Fullan, 2023; Gibson, 2014) for its significance in education, as part of research study, working tools and application. Moreover, corporate organizations have a paradigm shift, from classical statistical methodologies to highly computerized, intelligent statistical software like IBM SPSS Statistics, JMP, Minitab, OriginPro, Statgraphics Centurion, etc. Statistical software is time and cost-effective (Chakraborty, 2024) and can process complex mathematical and statistical equations and processes (Abbadia, 2024) for prompt management and organizational decision-making.

Statistics for Social Research 1, SSR is embraced especially by medium and large religious organizations (Branson, 2023; Jones, 2023), Pentecostal, Catholic and Evangelical Church management and administration. It is inspiring to the student in conducting his executive functions and decision-making process in nonprofit organization. The SSR is a necessary academic and professional tool, as an agent of change (Mohanasundari, et al., 2023; McPherson, 2017) in Christian and secular organizations. “Managers are top decision-makers in crucial elements such as organizational culture and their strategic decisions on the innovation processes” (Pedraza et al., 2023, para. 3). Apart from active nonprofit and profit organizational involvements, the student intends to publish books in sociology, anthropology and leadership which have some qualitative inductive and quantitative deductive contents, statistical charts and graphs for memorable reading and study experiences.

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