Statistics for Social Research II and Research Design and Methodology II

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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.

# Introduction

The first subterm of the spring of 2025 paired the second course in the series on statistics for social research with the second course on research design and methodology. These two courses working in concert within a series provide doctoral students with the methodological and analytical tools necessary for condition rigorous and reliable social research integrating religion and society. The course on research design continues the emphasis of an integrated and purposeful research design and helps the student engage with and understand the importance of hypothesis formulation, literature review and its impact on research structure, as well as helping the researcher understand how to select valid instruments and align all the part of the research project within the framework of a dissertation project. Walking alongside, the second course on statistics for social research advance statistical competence with a deeper understanding of parametric and nonparametric analysis, hypothesis testing, and data interpretation. The course is a skill building course to help the student researcher apply statistical reasoning to social phenomena. Together these courses form a critical foundation for the doctoral research programs at Omega Graduate School in the integration of religion and society by further equipping the student to design, implement, and analyze social phenomena related to the interrelation of religion and society.

# Personal Growth

These courses served both as an opportunity to revisit previous learning experiences I have had over the years regarding social research as well as adding new learning to my skillset for potential future research. Revisiting such basics as why the central limit theorem exists and governs key assumptions of statistical research and analysis and how the normal curve informs predictability served as a significant reminder of why statistical tools can be powerful when used correctly for understanding and predicting human social behavior. Review of basic visual instruments such as the box and whisker plot as well as the histogram assisted in refreshing basic principles that are essential to reliable integrated research design and analysis as understanding the normality or non-normality of one’s data is a fundamental key to applying the correct statistical methods. The engagement with provided data sets in the PSSR from both parametric and non-parametric approaches helped to further reinforce how correct data interpretation begins with understanding fundamental theoretical concepts about data and the instruments used to evaluate the data, hence why Omega Graduate Schools teaches statistics as a language with an emphasis on conceptual reasoning.

More specifically, at the beginning of the term my understanding of various statistical tests was minimal, particularly regarding their application in social research. The course has provided clearer comprehension of the various statistical methods used to test hypotheses, compare group differences, and examine relationships between variables. The t-test, for example, plays a crucial role in determining whether observed differences in means are statistically significant. Depending on the research design, one-sample, independent samples, or related samples t-tests can be applied to compare data points effectively. Additionally, I now understand that parametric tests like the t-test require assumptions about data distribution, while nonparametric alternatives such as the Mann-Whitney U test and the Wilcoxon signed-rank test provide robust options when these assumptions are not met. Beyond hypothesis testing, I have also gained insight into correlation measures, specifically Pearson’s R and Spearman’s rank-order correlation. These tests help researchers assess relationships between variables, distinguishing between linear and monotonic associations. Importantly, I now recognize that correlation does not imply causation, as other underlying factors may influence observed relationships. Applying these statistical tools to my hypothetical study on Gen Z failure to launch has reinforced their practical value. I now see how methods such as the Wilcoxon signed-rank test and Spearman’s correlation could be instrumental in evaluating the effectiveness of an educational intervention for parents and measuring its perceived impact on young adults. Overall, this experience has significantly deepened my understanding of statistical analysis in research. I better understand that hypothesis testing, like the t-test, assesses whether group differences are statistically significant, often to evaluate an intervention. Correlation testing, like Pearson’s R, measures the strength and direction of relationships between variables without implying causation. Hypothesis testing determines if an effect is likely due to chance, while correlation testing identifies associations that may suggest further study.

Tying in with the second course on research design, this subterm deepened my understanding of hypothesis formulation and resting and the importance of overall integration of a robust research design. I learned the distinction between correlation-based and quasi-experimental designs, particularly how the former explores relationships between variables while the latter tests an intervention's impact. The role of the null hypothesis became clearer. Especially appreciated was the emphasis that a null hypothesis assumes no effect or relationship until evidence justifies rejecting it and that failing to reject a null hypothesis does not equate to providing the null hypothesis. I have a greater understand and appreciation of statistical tools, like p-values, which help determine if observed differences are meaningful rather than due to chance.

Additionally, I gained insight into the literature review's function, not just summarizing prior research but shaping research design by informing question formulation, methodology, and theoretical framing. Finally, I learned that qualitative thematic analysis is both an art and a structured process. While interpretation requires immersion in the data and ongoing reflection, it is guided by systematic coding and categorization. This balance ensures that insights into complex social behaviors, such as parental influences on Gen Z's failure to launch, are both meaningful and methodologically sound.

# Reflection

I have appreciated how previous courses within the Omega Graduate School’s curriculum have set up a hypothetical research project within which to contextualize learning regarding statistical procedures and research design. Operating with the hypothetical research problem of GenZ young adults who fail to launch with in the population group of the Texas District of the Lutheran Church Missouri Synod, these two courses have further honed my planning for a future research project. A comprehensive understanding of both quantitative and qualitative methodologies will be vital for investigating the failure-to-launch phenomenon among Gen Z young adults in the Texas District of the Lutheran Church Missouri Synod. My engagement with statistical concepts, such as the normal curve, hypothesis testing, and correlation measures, reinforces the importance of selecting appropriate methods for analyzing social behaviors. For instance, the Wilcoxon signed-rank test and Spearman’s correlation could be particularly valuable for evaluating the effectiveness of a parent-focused educational intervention aimed at addressing failure-to-launch. These tools would allow me to assess whether observed changes in parental engagement and young adult independence are statistically significant and whether meaningful associations exist between intervention participation and outcomes. A t-test could be useful in evaluating the effectiveness of the educational intervention by comparing pre- and post-intervention scores on parental confidence, communication strategies, or perceived improvements in their child’s independence. For example, a paired-samples t-test could assess whether there is a statistically significant effective difference in parental engagement before and after the intervention, indicating whether the program had a measurable impact. These approaches would ensure methodological rigor while exploring the complexities of human behavior within religious and cultural contexts.

These courses increased my competency in research design strengthening my ability to conduct a dissertation study that can move in either a correlational or quasi-experimental direction. A clearer distinction between these approaches allows me to explore the relationships between parental behavior and young adult outcomes or to rigorously test an intervention aimed at improving launch rates. Understanding the nuances of hypothesis testing, including the role of p-values and the interpretation of statistical significance, equips me to assess whether observed patterns are meaningful or merely due to chance. This foundational knowledge ensures that my research will be methodologically sound, whether identifying key factors in young adults’ failure to launch or evaluating the effectiveness of a targeted parental education program.

These courses have refined my understanding and approach to qualitative thematic analysis enhancing my ability to interpret complex social behaviors within LCMS congregations. Recognizing that qualitative research requires both structured methodology and interpretive skill. Should I go the route of qualitative research, I am more confident in systematically coding and categorize data while allowing space for the lived experiences of parents and young adults to emerge. This approach will be particularly valuable in understanding the motivations, challenges, and support systems that shape Gen Z's delayed transition to independence. By integrating thematic analysis with statistical methods, I can capture both the depth of individual narratives and broader trends within the research population.

Ultimately, this term expanded my research skill set enabling me to construct a future dissertation framework that will balance rigorous statistical inquiry with reliable insights. Whether investigating correlations between parenting styles and launch outcomes or testing the efficacy of an educational intervention, I can ensure that my study provides a nuanced, evidence-based understanding of failure to launch within the LCMS Texas District. I am confident I can contribute meaningful research that informs both academic discourse and practical applications for congregations seeking to support young adults in achieving independence.

# Conclusion

The integration of the second course in statistics for social research and the second course on research design and methodology has significantly enhanced my research competencies and laid a solid foundation for a dissertation on Gen Z young adults who fail to launch within the Texas District of the Lutheran Church Missouri Synod. Through these courses, I gained a deeper understanding of both quantitative and qualitative research methodologies, which will allow me to explore real world problems with rigor and insight. The skills I have acquired in hypothesis formulation, statistical testing, and thematic analysis will enable me to design a study that is both methodologically sound and capable of providing valuable insights into young adults who fail to launch and how parents and Christian congregations may be able to further assist these young people. Whether I pursue a correlational approach to identify key relationships or a quasi-experimental design to test an intervention, I now have the tools to approach the research with confidence and precision. These two courses have better equipped me to offer meaningful contributions to both academic literature and to provide practical applications for supporting young adults in the LCMS Texas District as they transition to independence.