Research Design and Methodology III

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Professor

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Assignment

### *Developmental Readings*

Review Assignment #3, the course essential elements, assigned readings, and recommended readings to identify selections of books and scholarly articles to identify and select developmental reading sources and entries.

 **Essential Elements**

1. Ethical Research Criteria
2. Sampling Techniques
3. Data Analysis
4. Literature Review Outline

**Source One (Journal #1):** Shanks, K., & Paulson, J. (2022). Ethical research landscapes in fragile and conflict-affected contexts: Understanding the challenges. *Research Ethics 18*(3), 169–192. https://doi.org/10.1177/17470161221094134

**Comment 1:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** “…in fragile and conflict-affected contexts the multitude of overlapping agendas and community positions can create ethical dilemmas over what is an acceptable research topic. In situations plagued by insecurity or violence, the polarization of groups is often prevalent and widespread mistrust is common. This amplifies the potential for research topics to be easily politicized within the wider community and increases the potential for creating negative societal impacts or harm…the dilemma of fragile contexts, however, has potential to do harm and is often not immediately obvious, especially to an external researcher. As such, the thorough interrogation of how a project interacts with existing tensions in the research environment is essential, and not just during the project design stage, but continually throughout the project timeline” (p. 179).

**Essential Element:** This comment is associated with the essential element, ethical research criteria.

**Additive/Variant Analysis:** This comment is additive to my views of the importance of ethical guidelines and procedures in the research process. The authors highlight the challenges experienced by many vulnerable populations especially when the study is being funded by outside sources that are far-removed from the socioeconomic and geopolitical challenges.

**Contextualization:**  The statements resonate with my own experiences working in poor, volatile communities, and supporting community-based organisations in soliciting partnerships with international research agencies. Mistrust is exacerbated when research topics and objectives are pre-determined prior to engagement with community stakeholders. The fragility of vulnerable populations must be given primacy as even well-intentioned studies have the potential to leave the target population worse than they found it. My appreciation and value for strict yet sensitive ethical guidelines have been heightened.

**Comment 2:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** For research to be ethical, subjects must voluntarily consent to their participation and have a full understanding of what participation entails, including potential risks and benefits. The research team must clearly communicate any potential risks to the participants, manage any raised expectation of benefits, and ensure that participants feel under no obligation to participate…informed consent is often undermined by the context in which researcher positionality creates unavoidable power dynamics. When communicating risk to research participants researchers must understand how they are perceived culturally in the context of the research and unpack how this can influence potential interviewees’ perceptions of their freedom to participate (pp. 181-182).

**Essential Element:** This comment is associated with the essential element, ethical research criteria.

**Additive/Variant Analysis:** This comment is additive to my views of the importance of clear and frank communication between researcher and potential participant. Risks are an inherent part of every research process, and many times introduction of the studies to the target group includes an unequal power dynamic to emphasize only positive features and undue pressure is applied to gain consent.

**Contextualization:** The comments stated by Shanks and Paulson are very applicable in environments where there is a stark difference in cultural and socioeconomic conditions of the researcher and target group. There is a standing assumption by vulnerable groups that external interventions are being applied by persons who are more “informed” or knowledgeable about the solutions to their problems. This is exacerbated by cultural differences that affect how information is communicated, i.e., received by the subject. For vulnerable groups, it must be emphasized, that they have the freedom to decline initial consent, or withdraw their consent at any time during the research process.

Source Two (Journal 2): Makwana, Dhaval & Engineer, Priti & Dabhi, Amisha & Chudasama, Hardik. (2023). Sampling methods in research: A review. *International Journal of Trend in Scientific Research and Development,* *7*(3), 762-768.

**Comment 3:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** Nonprobability sampling is a sampling technique in which the likelihood of each member of the population being selected for the sample is not known. An example is in the investigation of the effects of child labour on minors where the researcher exclusively seeks out and conducts interviews with children who have been exposed to such labour practices. In purposive sampling, individuals are chosen for inclusion in a sample based on their relevance to the research objectives. The term "deliberate sampling" is also commonly utilised. This sampling technique is alternatively referred to as judgmental sampling” (p. 766).

**Essential Element:** This comment is associated with the essential element, sampling techniques and ethical considerations.

**Additive/Variant Analysis:** The passage is additive for me in providing clear definition for nonprobability sampling and explaining the usefulness of the method especially when operating in non-ideal environments. Most social research studies require the engagement with populations under challenging conditions, therefore, having “deliberate sampling” as a viable option is essential.

**Contextualization:** A sound understanding of nonprobability sampling is essential in my sphere of work as most problems that I encounter in inner-city communities in Jamaica are considered sensitive, both for the target group as well as the wider society. The use of nonprobability sampling techniques, therefore, is critical in enforcing ethical guidelines in the process of gathering a sample of participants in a discrete manner.

**Comment 4:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** “Stratified random sampling is a statistical technique that involves dividing a population into subgroups or strata based on certain characteristics, and then selecting a random sample from each stratum. This method is commonly used in research studies to ensure that the sample is representative of the population and to increase the precision of the estimates. By stratifying the population, the variability within each stratum is reduced, which can lead to more accurate results. Overall, stratified random sampling is a valuable tool for researchers seeking to obtain a representative sample from a larger population” (p.765).

**Essential Element:** This comment is associated with the essential element, sampling techniques.

**Additive/Variant Analysis:** The information presented in the excerpt is additive to me as it provided a broader understanding of sampling options for different presented circumstances. The stratified random option seems to have a blend between an initial purposeful action and a randomized selective component. Both are allowed in the valid research process and offer the researcher the flexibility to hone in on specific target objectives while retaining valued effects provided by randomized selection.

**Contextualization:** The comment is useful and applicable to me as my research area of interest, microbusinesses in inner-city communities in Jamaica. This, however, is too broad to realistically apply social research methodologies. Even if I narrow the population geographically to, communities in Kingston, Jamaica, it may still be too difficult to draw a sample. The application of stratified random sampling, however, gives me the chance to divide the population into different subgroups based on characteristics, such as commercial industry, I may then be able to select a random sample from each stratum.

Source Three (Book 1): Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Sage.

**Comment 5:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** “Figure out analysis before you gather data. I’ve talked with lots of advanced grad students who rushed to collect data before they knew anything about analyzing it – and lived to regret it, big time. This is true for statistical data and quantitative data, but somehow people seem to think that qualitative data are easy to analyze. No way... And don’t think that the software will solve the problem. You still have to analyze the data” (p. 34).

**Essential Element:** This comment is associated with essential element, data analysis.

**Additive/Variant Analysis:** The comments by Patton (2002) are interestingly additive for me. The author’s statements reinforce the importance of planning adequately before moving hastily into progressive stages of the research process. The decision of type of data analysis is a critical one as it affects every step of the research process. Sometimes student researchers get excited about the data gathering stage, and select an easy or familiar procedure, only to realize unforeseen challenges when it is time to process the data. Challenges might be seen in the complexity of analysis or even worse, data available but in an inappropriate format.

**Contextualization:** The lesson of proper planning and preparation is important for me as I am still in the early phases of my research process. Even if I already have a strong leaning towards a particular analytical process or an interest in drawing certain types of answers/findings, it is essential that the varied features of qualitative and quantitative methods are carefully considered. A pro or positive feature for one researcher might be a con for another researcher. At the end of the day, it is not necessarily what method is more difficult but what method provides the researcher with the right tools to answer the burning questions that emerged from the initial research problem.

Source Four (Book 2): Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, auantitative, and mixed methods approaches* (5th ed.). Sage.

**Comment 6:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase: “**Avoid disclosing only positive results. In research, it is academically dishonest to withhold important results or to cast the results in a favorable light to the participants’ or researchers’ inclinations. In qualitative research, this means that the inquirer needs to report the full range of findings, including findings that may be contrary to the themes. A hallmark of good qualitative research is the report of the diversity of perspectives about the topic. In quantitative research, the data analysis should reflect the statistical tests and not be underreported” (p. 152).

**Essential Element:** This comment is associated with the essential element, data analysis and ethical considerations.

**Additive/Variant Analysis:** The statements presented are considered additive to my strong belief in the open and objective process of research. Whether the study is qualitative or quantitative, the researcher has the obligation to follow through with a rigorous and ethical pathway that can benefit all stakeholders. Diverse perspectives don’t water-down findings, but instead, add to the body of knowledge and gives opportunity for continuous study on the topic.

**Contextualization:** The research process and the reporting should be objective. There is opportunity to provide the researcher’s analysis and interpretation of results, however, this must be based on the fullness and transparency of findings. All studies require some degree of investment, whether it be time, financial, reputational, or other resources. Investors would, therefore, be hoping that the results yield findings that provide what they would deem, an “adequate return” via positive results. Another consideration might be social exchange challenges for social researchers who are personally connected to the target group and have the desire to see positive outputs and outcomes. Researchers who spend many years with vulnerable groups need to pay attention to the possible bias.

**Comment 7:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** “Once the researcher identifies a topic that can and should be studied, the search can begin for related literature on the topic. The literature review accomplishes several purposes. It shares with the reader the results of other studies that are closely related to the one being undertaken. It relates a study to the larger, ongoing dialogue in the literature, filling in gaps and extending prior studies. It provides a framework for establishing the importance of the study as well as a benchmark for comparing the results with other findings” (p. 66).

**Essential Element:** This comment is associated with the essential element, literature review.

**Additive/Variant Analysis:** These foundational statements are additive to me as a student researcher as they reinforce the importance of having a sound literature review. Creswell and Creswell (2018) provide a clear yet very informative justification of the value of a well-documented literature review. The review is intended to adequately place the interests of the researcher in the midst of the broader body of knowledge. The intention is not to startle the researcher or to make him or her feel overwhelmed, but to encourage and motivate the researcher towards solving the pre-stated objectives and adding now knowledge for future reference.

**Contextualization:** Many times, the literature review is seen as a necessary yet arduous stage of the research process that just needs to be completed in order to move on to the more exciting stages. Many students who have completed their research papers and dissertations only recall their findings and their areas of primary interest. If the researcher does not appreciate his or her positioning in the progression of knowledge, then it would be considered a wasted opportunity to contribute findings of value within the ongoing dialogue on interrelated subjects.

**Comment 8:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** Quantitative research includes a substantial amount of literature at the beginning of a study to provide direction for the research questions or hypotheses. The literature is also used to introduce a problem or to describe in detail the existing literature in a section titled “Related Literature” or “Review of Literature,” or some other similar phrase. Also, the literature review can introduce a theory—an explanation for expected relationships, describe the theory that will be used, and suggest why it is a useful theory to examine. At the end of a study, the researcher then revisits the literature and makes a comparison between the results with the existing findings in the literature. In this model, the quantitative researcher uses the literature deductively as a framework for the research questions or hypotheses (p. 68).

**Essential Element:** This comment is associated with the essential element, Literature Review – Quantitative Research.

**Additive/Variant Analysis:** The comments inserted are additive to my understanding and progressive appreciation of the literature review. The authors provide added uses and reasons justifying the importance of the review. They also go further into how the researcher can maximize the work compiled even after the study is officially completed and findings are ascertained.

**Contextualization:** When a foundational theory is presented and expounded on in the literature review, it is considered a crucial referential framework that can be taken and utilized well after they study has been completed. The justification and extrapolation of findings do not stand on their own. When the researcher finds himself or herself discussing he/her research to others, it is then that the quality of the literature review becomes apparent. This is evident in written discussions as well as in open dialogue such as presentations and scholarly readings.

Source Five (Journal 3): Arevalo, M., Brownstein, N. C., Whiting, J., Meade, C. D., Gwede, C. K., Vadaparampil, S. T., Tillery, K. J., Islam, J. Y., Giuliano, A. R., & Christy, S. M. (2022). Strategies and lessons learned during cleaning of data from research panel participants: Cross-sectional web-based health behavior survey study. *JMIR Formative Research, 6*(6). <https://doi.org/10.2196/35797>

**Comment 9:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** “Data quality is often defined in relation to aspects such as accuracy, completeness, validity, and conformity. Evaluating the quality of web-based survey data and completing a data cleaning process before conducting statistical analyses is an important step that is often not reported transparently by research teams… A systematic and sequential multi-strategy plan was developed to assess responses. This included, (1) reviewing survey completion speed, (2) identifying consecutive responses, (3) identifying cases with contradictory responses, and (4) assessing the quality of open-ended responses. Thus, high-quality data is defined as survey data that had been stripped of instances of consecutive identical answers, contradictory responses, nonsensical open-ended responses, and responses completed in an unrealistic amount of time” (p.3).

**Essential Element:** This comment is associated with the topics of data cleaning and preparation.

**Additive/Variant Analysis:** The comments presented by Arevalo et al. (2022) are additive to my understanding of the steps and importance of cleaning and preparing data for analysis. This study focused on web-based data gathering, however, the points stated are relevant also to other methods and platforms. The procedural step that was of most interest to me was (1) reviewing survey completion speed. I would not have thought of that exclusion criterion but after reviewing the study I can see why that element was an important factor to consider.

**Contextualization:** Data gathering, cleaning, and preparation for analysis is a critical component of ensuring a valid research process. In this era of electronic data gathering options, researchers may see many data inputs or participant responses and assume that they have a full set of valuable data to process. They might, however, be disappointed when the data-cleaning filters are applied, and they are left with an insufficient amount of sample responses.

Source Six (Journal 4): Sahan, K., Wijesurendra, R., Preiss, D., Mafham, M., & Sheehan, M. (2024). Towards an understanding of the ethics of electronic consent in clinical trials.*Trials, 25*(1), 545. https://doi.org/10.1186/s13063-024-08330-3

**Comment 10:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** Be cautious about “an over-emphasis on the documentation of e-consent rather than on the e-consent processes themselves. This is found in some of the e-consent literature and regulations which seem overly focused on documentation-related questions, such as what standards are appropriate in order to verify a person’s identity when they sign an electronic consent form, and how to ensure personal information is transferred and stored secure…Documenting consent is not consent. Although the final signing of a document can represent the act of making a (final) decision, the signing is the contingent marking of that decision and could just as easily be captured in multiple alternative ways. The earlier parts of the process, those that crucially contribute to the decision-making process, raise many more ethical questions to do with comprehension and voluntariness, as well as the role of relational factors e.g. the role of participant trust in an electronic consent process versus one delivered by humans” (pp. 3-4).

**Essential Element:** This comment is associated with ethical research andconsent agreement.

**Additive/Variant Analysis:** The information presented by Sahan et al. (2024) is additive for me as it provides a more in-depth assessment of electronic consent agreements. Noteworthy is the statement, “documenting consent, is not necessarily consent”, as frequently the researcher focuses on the contents of the form and the ease with which the platform is able to retrieve the marked decision of the potential participant. Ethical considerations must include ensuring that the participant sees the consent form as relational form of communication rather than an intimidating coercive tool.

**Contextualization:** Many times, the language contained in social research forms are way “above the heads” of the target group. This is exacerbated when these forms are in electronic format as it becomes even easier for the respondent to just press “I Agree” and move on. When dealing with vulnerable groups, the trust factor becomes even more important as it is built (and torn down) through the entirety of the research process. The consent form is a key part of the initial engagement with the target group and, therefore, it can actually be used as an opportunity to have a positive interaction with participants, thus setting the stage for a fruitful and productive study.

Source Seven (Journal # 5): Stephen, T. E., Lamptey, R., Lawson, H. J., & Ofori-Amankwah, G. (2024). Intimate partner violence among pregnant women attending a low-resource primary care facility in Ghana.*PLoS One, 19*(9). https://doi.org/10.1371/journal.pone.0310169

**Comment 11:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** A systematic sampling technique was used… All pregnant women who were attendants at the antenatal care (ANC) clinic, and who could communicate in either English, Twi, or Ga, were eligible to participate in the study. The data collection instruments were translated into these local languages and administered in the preferred language of the participants. Pregnant women without an identified intimate partner at the time of recruitment, and those requiring hospital admission, were excluded. The aim and procedure for the study were read and explained to eligible participants and written informed consent for those 18 years and above, or assent for participants below 18 years was obtained. Data collection was done within the privacy of the consulting rooms at the ANC clinic using a pretested questionnaire” (p.4).

**Essential Element:** This comment is associated with sampling techniques, data collection, and ethical considerations.

**Additive/Variant Analysis:** The excerpt by Stephen et al. (2024) is considered additive for me as it provided a practical example sampling and data gathering with a vulnerable group. The researchers obviously took great care in planning each step of the process, considering the sensitive nature of the study. High ethical considerations were put in action, which shows the care that the researchers had for the well-being of the participants.

**Contextualization:** One might assume that smaller sample sizes mean easier data gathering processes. The above case demonstrates that this is not so. The more vulnerable the target group, the more care needs to be placed in the processes of sampling, consent agreement forms, and data gathering. The researchers even presented and enacted exclusion criterion for women without an intimate partner and those requiring hospitalization admission. This showed that the researchers were not solely focused on reaching a quota of responses. The lessons learned from this article can be applied.

**Comment 12:** *(from SR 958-52 Research Design and Methodology III)*

**Quote/Paraphrase:** “Ethical approval for this study was obtained from the Ghana Health Service–Ethical Review Committee (GHS-ERC 037/12/20). All participants were duly informed about the purpose of the study. They were encouraged to seek clarity to lingering questions about the study following which written informed consent was obtained prior to enrolment in the study. Parents/ guardians of study participants below 18 years were required to sign informed consent forms on behalf of their wards, while these participants were required to provide assent. All participants were informed that they could opt out of the study at any moment without incurring any consequences. To preserve privacy, questionnaires were administered to participants alone in the consulting room and to maintain anonymity, each entry was assigned a code in a codebook” (p. 5).

**Essential Element:** This comment is associated with informed consent, data gathering, and ethical considerations.

**Additive/Variant Analysis:** The explanation by Stephen et al. (2024) is considered additive for me as it provided a case including considerations for informed consent, data collection, and ethical guidelines. The comment presented an example of the gaining of approval from an governing, assessment body, the Ghana Health Service–Ethical Review Committee (GHS-ERC 037/12/20). This demonstrates a high level of professionalism in conducting of research on vulnerable groups, with the plausible intention of producing findings that have a significant impact on this group and others similar.

**Contextualization:** The acquisition of approval from governing bodies for ethical considerations is a major part of managing sensitive research studies. One might assume that this is only being done because it is a requirement, but it should also be noted that if/when the study is completed, it will be adequately positioned to be assessed and scrutinized by internal and external stakeholders. Conducting research on vulnerable groups need not be a fearful or uncomfortable process. If done properly, it may actually be therapeutic, adding hope for participants of solutions being found for issues they have experienced.

Works Cited

Arevalo, M., Brownstein, N. C., Whiting, J., Meade, C. D., Gwede, C. K., Vadaparampil, S. T., Tillery, K. J., Islam, J. Y., Giuliano, A. R., & Christy, S. M. (2022). Strategies and lessons learned during cleaning of data from research panel participants: Cross-sectional web-based health behavior survey study. *JMIR Formative Research, 6*(6). <https://doi.org/10.2196/35797>

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