

## ***Quantitative and Qualitative Research Method and Design Worksheet***

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For the course spanning task, complete Part I, II, and III of the worksheet.

The purpose of the worksheet is for you to demonstrate your understanding of the different research designs associated with the quantitative method, qualitative method, and mixed method. At this point, you will not have selected a research topic yet for your mini-research proposal; the objective is to learn about the different methods and designs so that when you do identify a topic, you will be able to (a) select the most appropriate method and design<sup>1</sup>, and (b) write your research proposal using the “language” of the method and design.

- Answer the questions provided for each quantitative, qualitative, and mixed method design listed.
- Include the level of detail needed to demonstrate your understanding of the design, using complete sentences.
- Use the example responses in the true experimental design column as a guide when preparing your responses.
- Demonstrate graduate-level writing skills by answering the questions using your own words; avoid cutting and pasting information from resources.

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<sup>1</sup> For the current course, you will be required to use a quantitative method.

| Part I: Common Quantitative Designs   |   |   |  |  |   |
|---|---|---|--|--|---|
|   | Experimental  |   | Non-experimental   |  |   |
|   | True experiments  | Quasi experiments   | Descriptive  | Correlational  | Causal comparative  |
| <b>To accomplish a study purpose, researchers must use the most appropriate design. When is it appropriate to use the design?</b>   | A true experiment is appropriate when a researcher is interested in determining if changes in one or more independent variables cause changes in one or more other dependent variables. To use the design, researchers must be able to randomly assign study participants to levels of the independent variable(s). | It is appropriate to use quasi-experiments when researchers are interested in using control and experiment groups to establish cause and effect relationships among variables, and the researcher does not manipulate the independent variable. They identify the variable but do not manipulate it. The groups are not randomly assigned but naturally formed or pre-existing (Creswell & Creswell, 2018; Winston-Salem University, n.d.). | The descriptive design is appropriate to use when the researcher wants to describe or define the current status of a phenomenon/variable. The researcher may not begin with a hypothesis but may develop one after data collection (Blackstone, 2012; Winston-Salem University, n.d.). | Correlation design is appropriate when researchers are interested in using the correlation statistic when describing and measuring the relationship between two or more sets of scores or variables' statistical data (Creswell & Creswell, 2018, 12; Winston-Salem University, n.d.). The researchers aim to recognize trends and patterns but do not wish to prove causes. Variables are studied, but they are not manipulated (Winston-Salem University, n.d.). | Causal comparative design is appropriate for researchers who wish to examine two or more groups to compare an independent variable or a cause (Creswell & Creswell, 2018). The phenomena, or the studies of the phenomena, being studied have already happened. The goal is to identify cause and effect, and the independent variable is not manipulated by the researcher. Groups must be naturally forming or pre-existing (Winston-Salem University, n.d.). |
| <b>When writing a research proposal, it is important to use the language associated with the research design; doing so is critical to demonstrating credibility as a researcher and avoiding reader confusion. What language is typically used when describing this design?</b> | Influence<br>Cause and effect<br>Random assignment<br>Test group/control group<br>Intervention<br>Independent and dependent variable  | Cause and effect<br>Independent and dependent variables<br>Naturally formed or pre-existing groups  | Systematic collection of information<br>Describe/define<br>Variable(s)<br>Current status   | Correlation statistic<br>Variables or sets of scores<br>Trends and/or patterns<br>Relationships<br>Comparison<br>Factor analysis   | Compare<br>Two or more groups<br>Cause (independent variable) and effect<br>Already Happened<br>Naturally formed or pre-existing groups.<br>Lack of manipulation  |

| Part II: Common Qualitative Designs   |   |  |   |
|---|---|--|---|
|   | Case study  | Phenomenology  | Ethnography   |
| <b>To accomplish a study purpose, researchers must use the most appropriate design.</b> When is it appropriate to use the design?   | Case studies are appropriate to use when the researcher seeks an in-depth analysis of a problem existing in a real-life setting. It can be used when the research problem is unclear. The research is often exploratory in an effort to better understand the nature and extent of a problem (Bhattacherjee, 2012; Creswell & Creswell, 2018). The researcher needs detailed information and to devote a sustained period of time to data collection. The case may likely be a program, event, process, individual, or activity. (Creswell & Creswell, 2018). | Phenomenology is appropriate when the researcher wants to describe an individual's lived experience (typically 3-10 individuals) (Creswell & Creswell, 2018). The researcher wants to gather detailed descriptions from numerous individuals who experienced a phenomenon. | Ethnography is appropriate when a researcher seeks to study an intact cultural group. The researcher needs data collected while immersed in the natural setting over an extended period of time. The researcher desires a holistic view of everyday experiences (Bhattacherjee, 2012; Creswell & Creswell, 2018; Winston-Salem University, n.d.). |
| <b>When writing a research proposal, it is important to use the language associated with the research design; doing so is critical to demonstrating credibility as a researcher and avoiding reader confusion.</b> What language is typically used when describing this design? | Themes or issues<br>Detailed (in-depth) description<br>Sustained Period of Time<br>Real-life/natural setting<br>Exploratory research<br>Case (analytic focus)   | Individual(s)<br>Lived Experiences<br>Detailed Descriptions<br>In-depth interviews   | Cultural group<br>Natural setting<br>Prolonged period of time<br>Observations<br>Interviews<br>Holistic<br>Narrative<br>Field notes<br>Formal and informal interaction<br>Interpretive research design<br>Immersion   |

| Part III: Mixed Method Designs  |   |   |  |
|---|---|---|--|
|   | Convergent parallel mixed methods   | Explanatory sequential mixed methods  | Exploratory sequential mixed methods   |
| <b>To accomplish a study purpose, researchers must use the most appropriate design. When is it appropriate to use the design?</b>   | The convergent parallel mixed methods design is appropriate for researchers who will collect both qualitative and quantitative data, analyze them separately, and compare the data to check for confirmation of each. The researcher may desire views from participants as well as quantitative scores. Researchers plan to merge the data (Creswell & Creswell, 2018). The quantitative and qualitative data are collected at roughly the same time. | Explanatory sequential mixed method design is appropriate for researchers who conduct and analyze quantitative research first then further explain this data with qualitative research (Creswell & Creswell, 2018). | Exploratory sequential mixed methods are appropriate when the researcher wants to use quantitative research to further explain qualitative research. This design is appropriate for researcher who wish to develop improved measurement instruments (Creswell & Creswell, 2018). |
| <b>When writing a research proposal, it is important to use the language associated with the research design; doing so is critical to demonstrating credibility as a researcher and avoiding reader confusion. What language is typically used when describing this design?</b> | Qualitative and quantitative data<br>Merge<br>Compare<br>Confirm or de-confirm (or converge or diverge)<br>Joint-display<br>Concurrent  | Sequential<br>Quantitative then qualitative<br>Further explain  | Sequential<br>Qualitative then quantitative<br>Qualitative themes<br>Quantitative measurement instrument   |

## References

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