A Guide to Research Methods is an overview of seven types of qualitative research, four types of quantitative research, and six types of mixed methods research. The purpose, examples of research questions, a sample study, and additional resources are provided for each type of research design.

# A Guide to Research Methods

Stephanie Burch-Bynum, Ph.D.

#### TABLE OF CONTENTS

| QUALITATIVE RESEARCH METHODS                | 2  |
|---|----|
| ETHNOGRAPHY                                 | 3  |
| NARRATIVE ANALYSIS                          | 4  |
| PHENOMENOLOGY                               | 5  |
| GROUNDED THEORY                             | 6  |
| CASE STUDY                                  | 7  |
| DOCUMENT ANALYSIS                           | 8  |
| BASIC QUALITATIVE DESIGN                    | 9  |
| QUANTITATIVE RESEARCH METHODS               | 10 |
| DESCRIPTIVE                                 | 11 |
| CORRELATIONAL                               | 12 |
| CAUSAL-COMPARATIVE/QUASI-EXPERIMENTAL       | 15 |
| EXPERIMENTAL                                | 17 |
| MIXED METHODS RESEARCH METHODS              | 19 |
| CONVERGENT PARALLEL MIXED METHODS DESIGN    | 20 |
| EXPLANATORY SEQUENTIAL MIXED METHODS DESIGN | 21 |
| EXPLORATORY SEQUENTIAL MIXED METHODS DESIGN | 23 |
| EMBEDDED MIXED METHODS DESIGN               | 24 |
| TRANSFORMATIVE MIXED METHODS DESIGN         | 25 |
| MULTIPHASE MIXED METHODS DESIGN             | 26 |
|   |    |

| REFERENCES | 28 |
|------------|----|
|            |    |

#### **Qualitative Research Methods**

Page | 2

Qualitative research methods primarily rely upon words or images to interpret the meaning of an issue or an event from the participants' point of view; to identify the reasons for the issue or an event; or to explain how an issue or event occurs (Creswell, 2014; Park & Park, 2016). There are several types of qualitative research designs including: ethnography, narrative analysis, phenomenology, grounded theory, case study, document analysis, and basic qualitative design (Creswell, 2014; Kridel, 2016; Worthington, n.d.). The research design is chosen based on the purpose of the research and the research questions (Creswell, 2014). The setting for the research is typically the place where the issue or event occurs (Creswell, 2014). The participant group is usually small and chosen based on certain characteristics (Creswell, 2014; Park & Park, 2016). The data consists of observations, interviews, documents, audio and visual materials (Creswell, 2014; Park & Park, 2016). Data analysis involves identifying themes or patterns in the information that was collected (Creswell, 2014).

|                            |  | Quali  | tative Research   |  |  |
|----------------------------|--|--|---|--|--|
| Type of Research<br>Design | Purpose  | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study   | Additional<br>Resources  |
| Ethnography                | Study cultural<br>beliefs,<br>practices, and<br>languages in a<br>natural setting<br>over a period of<br>time. | 1. How do<br>(participants) at<br>(research site)<br>(culture sharing<br>pattern)?<br>Ex: How do ELL<br>students at Brown<br>Tree high school<br>learn to speak<br>English by<br>watching<br>American<br>television shows? | secondary data<br>analysis; artifact<br>analysis; fieldwork;<br>observation/particip<br>ant observation;<br>and informal and<br>semi-structured<br>interviews | Karakul, A. K. (2016).<br>Student resistance<br>culture against school<br>values: An<br>ethnographic<br>research. <i>Journal For</i><br><i>Critical Education</i><br><i>Policy Studies</i><br><i>(JCEPS), 14</i> (1), 17-<br>43. | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Rashid, M., Caine, V.,<br>& Goez, H. (2015).<br>The encounters and<br>challenges of<br>ethnography as a<br>methodology in health<br>research. <i>International</i><br><i>Journal Of Qualitative</i><br><i>Methods</i> , 14(5), 1-16.<br>doi:10.1177/16094069<br>15621421<br>Tobin, J. (2014).<br>Comparative,<br>diachronic,<br>ethnographic research<br>on education. <i>Current</i><br><i>Issues In Comparative</i><br><i>Education</i> , 16(2), 6-<br>13. |

|                            |  | Quali   | tative Research  |  |  |
|----------------------------|--|---|--|--|--|
| Type of Research<br>Design | Purpose  | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies                                       | Sample Research<br>Study   | Additional<br>Resources  |
| Narrative         Analysis | Record and<br>report the<br>stories of people<br>who experienced<br>an event in a<br>chronological<br>order and<br>discuss the<br>meaning of the<br>stories for the<br>individual<br>participants. | 1. What is the<br>story for<br>(participants)<br>(event) at<br>(research site)?<br><b>Ex</b> : What are the<br>stories for<br>teachers' who<br>participated in<br>six-month teacher<br>strike of 2019 at<br>Small Public<br>Elementary<br>School? | interviews,<br>stories, journals,<br>letters,<br>autobiography,<br>conversations | Bryant, L. C., Moss,<br>G., & Zijdemans<br>Boudreau, A. S.<br>(2015). Understanding<br>poverty through race<br>dialogues in teacher<br>preparation. <i>Critical</i><br><i>Questions In</i><br><i>Education</i> , 6(1), 1-15. | Colorado State<br>University. (n.d.).<br>Narrative research<br>design. Retrieved from<br>http://edrm600narrativ<br>edesign.weebly.com/i<br>ndex.html.<br>Creswell, J.W. (2014).<br><i>Research design:</i><br><i>Qualitative,</i><br><i>quantitative, and</i><br><i>mixed methods</i><br><i>approaches (4<sup>th</sup> ed.).</i><br>Sage: Los Angeles,<br>CA.<br>Germeten, S. S.<br>(2013). Personal<br>narratives in life<br>history research.<br><i>Scandinavian Journal</i><br><i>Of Educational</i><br><i>Research, 57</i> (6), 612-<br>624.<br>doi:10.1080/00313831<br>.2013.838998 |

|                            | Qualitative Research  |   |   |   |   |
|----------------------------|---|---|---|---|---|
| Type of Research<br>Design | Purpose   | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies                                      | Sample Research<br>Study  | Additional<br>Resources   |
| Phenomenology              | Interview people<br>who experienced<br>an event in order<br>to determine<br>how they<br>interpret the<br>event and find<br>the<br>commonalities in<br>the experience<br>or a shared<br>meaning among<br>the participants. | <ol> <li>What is the experience of (event) for (group) at (research site)?</li> <li>Ex. What is the experience of tenure evaluation for novice female professors in a predominately male departments at Bigg University?</li> <li>What is meaning of (event) for (participant group) at (research site)?</li> <li>Ex. What is the meaning of bullying for behavioral disorder students at Littleton Middle School?</li> </ol> | interviews, focus<br>group interviews,<br>observations, and<br>video recordings | Thackeray, L. A., &<br>Eatough, V. (2015).<br>"Well the Future, That<br>Is Difficult": A<br>hermeneutic<br>phenomenological<br>analysis exploring the<br>maternal experience<br>of parenting a young<br>adult with a<br>developmental<br>disability. <i>Journal Of</i><br><i>Applied Research In</i><br><i>Intellectual</i><br><i>Disabilities</i> , 28(4),<br>265-275. | Trochim, W. M. K. &<br>Donnelly, J.P. (2008).<br><i>The research methods</i><br><i>knowledge base</i> (3 <sup>rd</sup><br>ed.). Cengage<br>Learning: Mason, OH.<br>Worthington, M. (n.d.).<br>Differences between<br>phenomenological<br>research and a basic<br>qualitative research<br>design. Retrieved from<br>http://a1149861.sites.<br>myregisteredsite.com/<br>DifferencesBetweenP<br>henomenologicalRese<br>archAndBasicQualitati<br>veResearchDesign.pd<br>f.<br>Yüksel, P. P., &<br>Yıldırım, S. S. (2015).<br>Theoretical<br>frameworks, methods,<br>and procedures for<br>conducting<br>phenomenological<br>studies in educational<br>settings. <i>Turkish</i><br><i>Online Journal Of</i><br><i>Qualitative Inquiry</i> ,<br><i>6</i> (1), 1-20. |

|                            |  | Quali  | tative Research   |  |  |
|----------------------------|--|--|---|--|--|
| Type of Research<br>Design | Purpose  | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study   | Additional<br>Resources  |
| Grounded<br>Theory         | Explain a<br>process which<br>little is previously<br>known about. | <ol> <li>What is the<br/>process of (event)<br/>for (participants)<br/>at (research<br/>site)?</li> <li>Ex. What is the<br/>process of<br/>implementing an<br/>integrated<br/>curriculum for<br/>teachers at ABC<br/>Preschool?</li> </ol> | interviews,<br>observations, and<br>anything that<br>appears in the field<br>is considered data | Koerber-T., M. K.<br>(2014). Value-based<br>teaching: A grounded<br>theory of internalizing<br>accountability in<br>teaching<br>documentation<br>(Doctoral dissertation).<br>Retrieved from PQDT<br>Open. (UMI NO.<br>3647751) | Baturina, D. D. (2015).<br>In expectation of the<br>theory: Grounded<br>theory<br>method. <i>Methodologic</i><br><i>al Horizons</i> , <i>10</i> (1), 77-<br>90.<br>Creswell, J.W. (2014).<br><i>Research design:</i><br><i>Qualitative,</i><br><i>quantitative, and</i><br><i>mixed methods</i><br><i>approaches</i> ( <i>4</i> <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Sbaraini, A., Carter,<br>S.M., Evans, R.W., &<br>Blinkhorn, A. (2011).<br>How to do a grounded<br>theory study: A<br>worked example of a<br>study of dental<br>practices. <i>BMC</i><br><i>Medical Research</i><br><i>Methodology</i> 11 (128),<br>1-10. Retrieved from<br>http://www.biomedcen<br>tral.com/content/pdf/1<br>471-2288-11-<br>128.pdfCachedSimilar<br>by. |

|                            |   | Qual   | itative Research   |   |   |
|----------------------------|---|--|--|---|---|
| Type of Research<br>Design | Purpose                                     | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study  | Additional<br>Resources   |
| Case Study                 | Explain how or<br>why an event<br>occurred. | <ol> <li>How do<br/>(participants)<br/>explain/describe<br/>(issue) at<br/>(research site)?</li> <li>Ex. How do<br/>parents of high<br/>school students<br/>with cognitive<br/>disabilities<br/>describe their<br/>decision to<br/>homeschool in<br/>California?</li> <li>Why do<br/>(participants)<br/>experience<br/>(event) at<br/>(research site)?</li> <li>Ex. Why do ELL<br/>students fail the<br/>comprehensive<br/>end of year exam<br/>at Davis<br/>Elementary<br/>School?</li> </ol> | documents,<br>archival records,<br>interviews, direct<br>observation,<br>participant<br>observation, and<br>physical artifacts | Barbour, M. K. (2015).<br>Real-time virtual<br>teaching: Lessons<br>learned from a case<br>study in a rural<br>school. <i>Online<br/>Learning</i> , <i>19</i> (5), 54-<br>68. | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Gog, M. (2015). Case<br>study<br>research. International<br>Journal Of Sales,<br>Retailing &<br>Marketing, 4(9), 33-<br>41. |

Page | 7

| Qualitative Research       |  |   |  |  |   |
|----------------------------|--|---|--|--|---|
| Type of Research<br>Design | Purpose  | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study   | Additional<br>Resources   |
| Document         Analysis  | Examines and<br>interprets the<br>meaning of<br>documents in<br>order to describe<br>an event. | <ol> <li>How are<br/>different<br/>(events/ideas)<br/>represented by<br/>(objects) from<br/>(research site)?</li> <li>Ex. How are<br/>teacher's strikes<br/>from 2012 to<br/>2017 portrayed<br/>by the local<br/>newspapers in<br/>Chicago, Peoria,<br/>and Springfield?</li> <li>What are the<br/>trends<br/>represented in<br/>(objects) from<br/>(research site)?</li> <li>Ex. What are the<br/>trends in Latino<br/>students' reading<br/>scores from<br/>2011-2016 on the<br/>Basic Test at<br/>Milhouse High<br/>School?</li> </ol> | documents<br>including but not<br>limited to: images,<br>diaries,<br>publications, sound<br>recordings,<br>monuments,<br>memorials,<br>correspondence,<br>journals,<br>autobiographical<br>writings, memoir,<br>newspapers,<br>magazines, flyers,<br>books, meeting<br>minutes, reports,<br>school records,<br>yearbooks | Yang, L., & Myint<br>Swe, K. (2016).<br>Content analysis of<br>the diagrammatic<br>representations of<br>primary science<br>textbooks. <i>Eurasia</i><br><i>Journal Of</i><br><i>Mathematics, Science</i><br>& <i>Technology</i><br><i>Education, 12</i> (8),<br>1937-1951.<br>doi:10.12973/eurasia.<br>2016.1288a | Kridel, C. (2016). An<br>introduction to<br>documentary<br>research. Retrieved<br>from<br>http://www.aera.net/SI<br>G013/Research-<br>Connections/Introducti<br>on-to-Documentary-<br>Research. |

|  | Qualitative Research  |   |   |   |   |
|--|---|---|---|---|---|
| Type of Research<br>Design                 | Purpose   | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study  | Additional<br>Resources   |
| Basic<br>Qualitative<br>Research<br>Design | Used when the<br>research<br>questions or<br>problem require<br>a qualitative<br>approach but the<br>purpose of the<br>study or the type<br>of data desired<br>does not fit other<br>qualitative<br>approaches and<br>the researcher<br>has pre-existing<br>knowledge about<br>the research<br>topic and wants<br>to examine the<br>topic from a<br>participants'<br>perspective. | <ol> <li>What are<br/>(identify the<br/>person or group)<br/>attitudes,<br/>opinions, or<br/>beliefs about<br/>(identify the issue<br/>or experience)?</li> <li>Ex: What are first<br/>time mother's<br/>beliefs about<br/>mandatory school<br/>vaccinations?</li> <li>What are<br/>(identify the<br/>person or group)<br/>feelings about<br/>(name the person<br/>or groups)<br/>performance?</li> <li>Ex: What are the<br/>high school<br/>teachers' at Best<br/>School District<br/>feelings about the<br/>performance of<br/>their principals?</li> </ol> | interview,<br>observation of an<br>event or activity,<br>documents,<br>questionnaires, and<br>surveys | Hu, X., Turnbull, A.,<br>Summers, J. A., &<br>Wang, M. (2015).<br>Needs of Chinese<br>families with children<br>with developmental<br>disabilities: A<br>qualitative<br>inquiry. <i>Journal Of</i><br><i>Policy &amp; Practice In</i><br><i>Intellectual</i><br><i>Disabilities</i> , <i>12</i> (1), 64-<br>73.<br>doi:10.1111/jppi.1211<br>0 | Percy, W. H., Kostere,<br>K. and Kostere, S.<br>(2015). Generic<br>qualitative research in<br>psychology. <i>The</i><br><i>Qualitative Report</i> , 20<br>(2), Article 5, 76-85,<br>Retrieved from<br>http://www.nova.edu/s<br>sss/QR/QR20/2/percy<br>5.pdf.<br>Worthington, M. (n.d.).<br>Differences between<br>phenomenological<br>research and a basic<br>qualitative research<br>design. Retrieved from<br>http://a1149861.sites.<br>myregisteredsite.com/<br>DifferencesBetweenP<br>henomenologicalRese<br>archAndBasicQualitati<br>veResearchDesign.pd<br>f. |

#### **Quantitative Research Methods**

Quantitative research methods use numerical values to describe a trend, characteristic or behavior; to demonstrate relationships among variables; to examine the impact of one variable upon another; to test a theory; and to determine if one variable causes a change or event (Creswell, 2014; Park & Park, 2016; Tavakol & Sandars, 2014). There are four types of quantitative research designs: descriptive, correlational, causal-comparative/quasi-experimental, and experimental (Creswell, 2014). The research design is chosen based on the purpose of the research and the research questions (Creswell, 2014). A hypothesis and null hypothesis accompanies the research questions (Creswell, 2014; Hoy & Adams, 2016). The participant group is usually large and pre-formed groups called a convenience sample or randomly chosen in which each individual in a population has an equal chance of being chosen (Creswell, 2014; Park & Park, 2016). The data consists surveys, existing data sets, observation, and assessments (Creswell, 2014; Park & Park, 2016). Data is analyzed using statistical analysis (Creswell, 2014).

|  | Quantitative Research   |   |   |   |   |
|--|---|---|---|---|---|
| Type of Research<br>Design   | Purpose   | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study  | Additional<br>Resources   |
| Descriptive<br>Transformation of the second se | Uses<br>observation to<br>identify and<br>describe<br>behavior,<br>characteristics,<br>or trends in the<br>data sets.<br>Descriptive<br>research does<br>not determine<br>how or why<br>something<br>occurs. There is<br>no hypothesis or<br>null hypothesis. | <ol> <li>What<br/>(measurement) of<br/>(participant<br/>group) at<br/>(research site)<br/>does/have<br/>(behavior or<br/>characteristic)?</li> <li>Ex. What<br/>percentage of<br/>high school<br/>teachers in the<br/>Clark School<br/>District have dual<br/>certification?</li> <li>What trends<br/>are identifiable in<br/>regards to<br/>(characteristic) of<br/>the participant<br/>group at research<br/>site?</li> <li>Ex. What trends<br/>are identifiable in<br/>regards to the<br/>gender of honor<br/>roll students at<br/>Mulberry High<br/>School from<br/>2006-2016?</li> </ol> | surveys,<br>questionnaires,<br>non-participant<br>observation,<br>statistics, numerical<br>data, reports, and<br>assessments. | Brown, A. V., &<br>Thompson, G. L.<br>(2016). The evolution<br>of foreign language<br>AP exam candidates:<br>A 36-Year descriptive<br>study. <i>Foreign</i><br><i>Language Annals</i> ,<br><i>49</i> (2), 235-251.<br>doi:10.1111/flan.1219<br>7<br>Selkow, N. N.,<br>Herman, D. C.,<br>Zhenqi, L., Hertel, J.,<br>Hart, J. M., & Saliba,<br>S. A. (2015).<br>Incidence and<br>descriptive<br>epidemiology of<br>injuries to college<br>ultimate<br>players. <i>Journal Of</i><br><i>Athletic Training (Allen</i><br><i>Press)</i> , <i>50</i> (4), 419-<br>425.<br>doi:10.4085/1062-<br>6050-49.3.73 | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Hoy, W.K. & Adams,<br>C.M. (2016).<br>Quantitative research<br>in education: A primer<br>(2 <sup>nd</sup> ed.). Sage: Los<br>Angeles, CA. |

|   | Quantitative Research   |  |  |   |   |
|---|---|--|--|---|---|
| Type of Research<br>Design  | Purpose   | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study  | Additional<br>Resources   |
| Correlational         Image: Display the second se | Determines the<br>statistical<br>relationship<br>between two or<br>more variables.<br>The degree that<br>one variable<br>impacts another<br>can also be<br>determined.<br>Correlational<br>research does<br>not determine if<br>one variable<br>causes another. | <ol> <li>What is the<br/>relationship<br/>between (variable<br/>A) and (variable<br/>B) for<br/>(participants) at<br/>(research site)?</li> <li>Ex. What is the<br/>relationship<br/>between Carrey<br/>Middle School<br/>students<br/>submitting<br/>incomplete math<br/>homework and<br/>the end of the<br/>chapter test<br/>scores?</li> <li>Hypothesis:<br/>There is a<br/>positive<br/>relationship<br/>between<br/>incomplete math<br/>homework and<br/>end of the<br/>chapter test<br/>scores.</li> <li>Null Hypothesis:<br/>There is no<br/>relationship<br/>between<br/>incomplete math<br/>homework and<br/>end of the<br/>chapter test<br/>scores.</li> </ol> | surveys,<br>questionnaires,<br>naturalistic<br>observation,<br>statistics, numerical<br>data, reports, and<br>assessments. | Konaklı, T. (2015).<br>Effects of self-efficacy<br>on social<br>entrepreneurship in<br>education: A<br>correlational<br>research. <i>Research In</i><br><i>Education</i> , (94), 30-<br>43.<br>doi:10.7227/RIE.0019 | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Price, P.C., Jhangiani,<br>R.S., & Chiang, I.A.<br>(2015). Research<br>methods in<br>psychology (2 <sup>nd</sup><br>Canadian ed.). B.C.<br>Open Textbooks.<br>Retrieved from<br>https://opentextbc.ca/r<br>esearchmethods/part/<br>nonexperimental-<br>research/. |

Page | 12

| chapter test       |
|--------------------|
| scores.            |
|                    |
| 2. To what         |
| degree, does       |
| (variable A)       |
| impact (variable   |
| B) at (research    |
| site)?             |
| Ex. To what        |
|                    |
| degree, does       |
| having a teacher   |
| with a master's in |
| science degree     |
| impact Hamilton    |
| High School        |
| students' test     |
| scores on the      |
| science module     |
| of the ACT?        |
| Hypothesis:        |
| Hamilton High      |
| School students    |
| who had a          |
| science teacher    |
| with a master's    |
| degree in science  |
| will have higher   |
| ACT test scores    |
| than students      |
| with teachers who  |
| did not.           |
|                    |
| Null Hypothesis:   |
| There is no        |
| significant        |
| difference in the  |
| test scores on the |
| science module     |
| of the ACT         |
| between Hamilton   |
| High School        |

| students who had  |  |
|-------------------|--|
| a science teacher |  |
| with a master's   |  |
| degree in science |  |
| and students who  |  |
| did not.          |  |

| Quantitative Research                             |  |   |  |  |  |  |  |
|---|--|---|--|--|--|--|--|
| Type of Research<br>Design                        | Purpose  | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study   | Additional<br>Resources  |  |  |
| Causal-<br>Comparative/<br>Quasi-<br>Experimental | Determines the<br>cause and effect<br>of a change that<br>has already<br>occurred. | <ol> <li>What are the effects of (variable) on (participant group A) compared to (participant group B) at (research site)?</li> <li>Ex. What are the effects of the after school tutoring program at the Park Elementary School on the math course grades of fourth grade students who attended the program compared to fourth grade students who did not?</li> <li>Hypothesis: There is a difference between the math course grades of fourth grade students who attended the after school tutoring program at Park Elementary School on the math course grades of fourth grade students who did not?</li> </ol> | Two or more<br>groups are formed<br>based on certain<br>characteristics and<br>compared. | Bell, S. S., Taylor, E.<br>P., McCallum, R. S.,<br>Coles, J. T., & Hays,<br>E. (2015). Comparing<br>prospective twice-<br>exceptional students<br>with high-performing<br>peers on high-stakes<br>tests of<br>achievement. <i>Journal</i><br><i>For The Education Of</i><br><i>The Gifted</i> , <i>38</i> (3),<br>294-317.<br>doi:10.1177/01623532<br>15592500<br>Haynes, J. J.,<br>Robinson, J.S.,<br>Edwards, M. C., &<br>Key, J. J. (2012).<br>Assessing the effect of<br>using a science<br>enhanced curriculum<br>to improve agriculture<br>students' science<br>scores: A causal<br>comparative<br>study. <i>Journal Of</i><br><i>Agricultural</i><br><i>Education</i> , <i>53</i> (2), 15-<br>27.<br>doi:10.5032/jae.2012.<br>02015 | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Turner, T. L., Balmer,<br>D. F., & Coverdale, J.<br>H. (2013).<br>Methodologies and<br>study designs relevant<br>to medical education<br>research. International<br>Review Of<br>Psychiatry, 25(3), 301-<br>310.<br>doi:10.3109/09540261<br>.2013.790310 |  |  |

| students who did   |  |  |
|--------------------|--|--|
| not attend.        |  |  |
| Null Hypothesis:   |  |  |
| There is no        |  |  |
|                    |  |  |
| significant        |  |  |
| difference         |  |  |
| between the        |  |  |
| course grades of   |  |  |
| fourth grade       |  |  |
| students who       |  |  |
| attended the after |  |  |
| school tutoring    |  |  |
| program at Park    |  |  |
| Elementary         |  |  |
| School and         |  |  |
| students who did   |  |  |
| not attend.        |  |  |

| Quantitative Research      |   |   |   |   |   |  |  |
|----------------------------|---|---|---|---|---|--|--|
| Type of Research<br>Design | Purpose   | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study  | Additional<br>Resources   |  |  |
| Experimental               | Introduces a<br>change to one<br>group but<br>withholds it from<br>another. The<br>impact of the<br>change is then<br>studied by<br>comparing the<br>two groups. It<br>can determine if<br>one thing causes<br>another.<br>Participants are<br>randomly<br>assigned to<br>groups. | 1. Does (variable<br>A) cause<br>(variable B) at the<br>research site?<br><b>Ex.</b> Does<br>providing ten<br>additional<br>minutes on<br>spelling quizzes<br>cause an<br>increase in<br>scores for third<br>grade students at<br>Wiley Elementary<br>School?<br><b>Hypothesis:</b><br>Willey Elementary<br>School third<br>graders who are<br>given more time<br>to take quizzes<br>will have higher<br>spelling quiz<br>scores than<br>students who<br>were not given<br>additional time.<br><b>Null Hypothesis:</b><br>There is no<br>relationship<br>between the<br>amount of time<br>given to take a<br>spelling quiz and<br>third grade | Participants are<br>randomly assigned<br>into two groups.<br>The researchers<br>will introduce and<br>measure the effects<br>of a change in one<br>group, the<br>experimental<br>group. The<br>researchers does<br>not introduce the<br>change in the other<br>group, the control<br>group. The<br>researcher also<br>collects<br>measurements on<br>the control group<br>for comparison with<br>the experimental<br>group. | Caravita, S. S.,<br>Colombo, B.,<br>Stefanelli, S., &<br>Zigliani, R. (2016).<br>Emotional,<br>psychophysiological<br>and behavioral<br>responses elicited by<br>the exposition to<br>cyberbullying<br>situations: Two<br>experimental studies.<br><i>Psicologia</i><br><i>Educativa, 22</i> (1), 49-<br>59.<br>doi:10.1016/j.pse.201<br>6.02.003 | Creswell, J.W. (2014).<br><i>Research design:</i><br><i>Qualitative,</i><br><i>quantitative, and</i><br><i>mixed methods</i><br><i>approaches (4<sup>th</sup> ed.).</i><br>Sage: Los Angeles,<br>CA.<br>Hudson, T., & Llosa,<br>L. (2015). Design<br>Issues and Inference<br>in Experimental L2<br>Research. <i>Language</i><br><i>Learning, 65</i> 76-96.<br>doi:10.1111/lang.1211<br>3<br>Hoy, W.K. & Adams,<br>C.M. (2016).<br><i>Quantitative research</i><br><i>in education: A primer</i><br><i>(2<sup>nd</sup> ed.).</i> Sage: Los<br>Angeles, CA. |  |  |

| students' quiz<br>scores at Wiley<br>Elementary<br>School. |  |  |
|--|--|--|
|  |  |  |

#### **Mixed Methods Research Methods**

Mixed methods research methods combines qualitative and quantitative research to compare data; to explain results; develop better instruments; to understand the results of an experiment; to identify and advocate changes for a marginalized group; and to evaluate the need and impact of a program (Creswell, 2014; Venkatesh, Brown, & Sullivan, 2016). There are several types of mixed methods research designs including: convergent parallel mixed methods design, explanatory sequential mixed methods design, exploratory sequential mixed methods design, embedded mixed methods design, transformative mixed methods design, and multiphase mixed methods design (Creswell, 2014). The research design is chosen based on the purpose of the research and the research questions (Creswell, 2014; Venkatesh, Brown & Sullivan, 2016). A hypothesis and null hypothesis accompanies the quantitative research questions (Creswell, 2014). The same variables or constructs are measured by collecting qualitative and quantitative data (Creswell, 2014). The participant group, data, and data analysis is depended upon the type of mixed method research design that is chosen (Creswell, 2014; Venkatesh, Brown & Sullivan, 2016).

Page |

|  | Mixed Methods Research   |  |  |  |   |  |  |  |
|--|--|--|--|--|---|--|--|--|
| Type of Research<br>Design                 | Purpose  | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study   | Additional<br>Resources   |  |  |  |
| Convergent<br>Parallel<br>Mixed<br>Methods | Compares the<br>results of or<br>perspectives<br>from a<br>qualitative<br>research study<br>and a<br>quantitative<br>research study. | <ol> <li>At least one<br/>qualitative<br/>research<br/>question.</li> <li>At least one<br/>quantitative<br/>research question<br/>which includes<br/>Hypothesis:<br/>Null Hypothesis:</li> <li>Optional mixed<br/>methods<br/>question: How<br/>do the results of<br/>the (type of<br/>qualitative study)<br/>and the (type of<br/>qualitative study)<br/>and the (type of<br/>qualitative study)<br/>and the (type of<br/>quantitative<br/>study) findings<br/>(support, refute,<br/>or relate) to each<br/>other?</li> <li>Ex. How do the<br/>results of the<br/>correlational<br/>study and the<br/>grounded theory<br/>findings support<br/>or refute each<br/>other?</li> </ol> | Select one type of<br>qualitative research<br>study and one type<br>of quantitative<br>research study to<br>conduct. Then,<br>compare the data,<br>or results from<br>each study to<br>determine<br>similarities and<br>differences. | Özden, M. M. (2015).<br>Prospective<br>elementary school<br>teachers' views about<br>socioscientific issues:<br>A concurrent parallel<br>design study.<br><i>International</i><br><i>Electronic Journal Of</i><br><i>Elementary</i><br><i>Education, 7</i> (3), 333-<br>353. | Creswell, J.W. (2014).<br><i>Research design:</i><br><i>Qualitative,</i><br><i>quantitative, and</i><br><i>mixed methods</i><br><i>approaches (4<sup>th</sup> ed.).</i><br>Sage: Los Angeles,<br>CA.<br>Subedi, D. (2016).<br>Explanatory<br>sequential mixed<br>method design as the<br>third research<br>community of<br>knowledge claim.<br><i>American Journal of</i><br><i>Educational Research,</i><br><i>4</i> (7), 570-577. doi:<br>10.12691/education-4-<br>7-10. Retrieved from<br>http://pubs.sciepub.co<br>m/education/4/7/10/.<br>Venkatesh, V., Brown,<br>S. A., & Sullivan, Y.<br>W. (2016). Guidelines<br>for conducting mixed-<br>methods research: An<br>extension and<br>illustration. <i>Journal Of</i><br><i>The Association For</i><br><i>Information Systems,</i><br><i>17</i> (7), 435-495. |  |  |  |

Page | 20

|   | Mixed Methods Research   |  |  |   |  |  |  |  |
|---|--|--|--|---|--|--|--|--|
| Type of Research<br>Design                              | Purpose  | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study  | Additional<br>Resources  |  |  |  |
| Explanatory<br>Sequential<br>Mixed<br>Methods<br>Design | To explain<br>quantitative<br>results using<br>qualitative data<br>in order to have<br>a more in depth<br>understanding of<br>the event. | <ol> <li>At least one<br/>qualitative<br/>research<br/>question.</li> <li>At least one<br/>quantitative<br/>research question<br/>which includes<br/>Hypothesis:<br/>Null Hypothesis:</li> <li>Optional mixed<br/>methods<br/>question: How<br/>can the results of<br/>the (type of<br/>quantitative<br/>study) about<br/>(event) (at<br/>research site) be<br/>explained using<br/>(type of<br/>qualitative<br/>study)?</li> <li>Ex. How can the<br/>results of the<br/>descriptive study<br/>about classroom<br/>technology use<br/>be explained<br/>using a case<br/>study regarding<br/>the use of paper-<br/>based</li> </ol> | Select one type of<br>quantitative<br>research study and<br>one type of<br>qualitative research<br>study to conduct.<br>After analyzing the<br>results of the<br>quantitative study,<br>determine which<br>results require<br>further explanation.<br>Then, conduct a<br>follow up qualitative<br>study using the<br>same participants<br>in order to explain<br>how or why the<br>quantitative results<br>occurred. | Taghizadeh, Z.,<br>Vedadhir, A.,<br>Behmanesh, F.,<br>Ebadi, A., Pourreza,<br>A., & Abbasi-Shavazi,<br>M. J. (2015).<br>Reproductive<br>practices by patterns<br>of marriage among<br>Iranian women: Study<br>protocol for an<br>explanatory sequential<br>mixed methods<br>design. <i>Reproductive</i><br><i>Health</i> , <i>12</i> (1), 1-8.<br>doi:10.1186/s12978-<br>015-0080-1 | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Subedi, D. (2016).<br>Explanatory<br>sequential mixed<br>method design as the<br>third research<br>community of<br>knowledge claim.<br>American Journal of<br>Educational Research,<br>4 (7), 570-577. doi:<br>10.12691/education-4-<br>7-10. Retrieved from<br>http://pubs.sciepub.co<br>m/education/4/7/10/. |  |  |  |

Page | 21

| communication at |  |
|------------------|--|
| Richmond Middle  |  |
| School?          |  |

|   | Mixed Methods Research  |   |   |  |  |  |  |
|---|---|---|---|--|--|--|--|
| Type of Research<br>Design                              | Purpose   | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study   | Additional<br>Resources  |  |  |
| Exploratory<br>Sequential<br>Mixed<br>Methods<br>Design | To explain<br>qualitative<br>results using<br>quantitative data<br>in order to have<br>a more in depth<br>understanding of<br>the event or to<br>develop a<br>measurement<br>instrument in<br>order to<br>determine if the<br>results from a<br>qualitative study<br>can be<br>generalized. | <ol> <li>At least one<br/>qualitative<br/>research<br/>question.</li> <li>At least one<br/>quantitative<br/>research question<br/>which includes</li> <li>Hypothesis:<br/>Null Hypothesis:</li> <li>Optional mixed<br/>methods<br/>question: To<br/>what extent does<br/>(qualitative<br/>results), help to<br/>explain (event) at<br/>(research site)?</li> <li>Ex. To what<br/>extent do teacher<br/>and principal<br/>perceptions about<br/>the student<br/>discipline help to<br/>explain how<br/>faculty referrals<br/>impact the<br/>number of school<br/>suspensions at<br/>Stokes<br/>Elementary<br/>School?</li> </ol> | Select one type of<br>qualitative research<br>study and one type<br>of quantitative<br>research study to<br>conduct. Using the<br>results of the<br>qualitative study,<br>the researcher can<br>develop a<br>measurement<br>instrument such as<br>a scale. The<br>qualitative results<br>can also be used to<br>identify variables,<br>categories, or<br>groups to study in a<br>quantitative study.<br>Then, a follow up<br>quantitative study<br>using the different<br>participants is<br>conducted. | Bazrafshan, A.,<br>Haghdoost, A.,<br>Rezaei, H., &<br>Beigzadeh, A. (2015).<br>A practical framework<br>for evaluating health<br>services management<br>educational program:<br>The application of the<br>mixed-method<br>sequential explanatory<br>design. <i>Research &amp;<br/>Development In</i><br><i>Medical</i><br><i>Education, 4</i> (1), 47-<br>54.<br>doi:10.15171/rdme.20<br>15.008<br>Neiswender, C.<br>(2015). Bridgeworks:<br>An exploratory mixed<br>methods study of<br>student transitions<br>from noncredit to<br>credit in mathematics<br>(Doctoral dissertation).<br>Retrieved from PQDT<br>Open. (UMI<br>No.3663039) | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Ingham-Broomfield, R.<br>(2016). A nurses'<br>guide to mixed<br>methods<br>research. Australian<br>Journal Of Advanced<br>Nursing, 33(4), 46-52.<br>Mason, P., Augustyn,<br>M., & Seakhoa-King,<br>A. (2010). Exploratory<br>study in tourism:<br>designing an initial,<br>qualitative phase of<br>sequenced, mixed<br>methods research.<br>International Journal<br>Of Tourism<br>Research, 12(5), 432-<br>448. |  |  |

|                              | Mixed Methods Research  |   |   |  |  |  |  |
|------------------------------|---|---|---|--|--|--|--|
| Type of Research<br>Design   | Purpose   | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study   | Additional<br>Resources  |  |  |
| Embedded<br>Mixed<br>Methods | To understand<br>an experiment's<br>or intervention's<br>results by<br>incorporating<br>participants'<br>views. | <ol> <li>Qualitative<br/>research<br/>questions or<br/>quantitative<br/>research<br/>questions which<br/>include<br/>Hypothesis:<br/>Null Hypothesis:</li> <li>Optional mixed<br/>methods<br/>question: How<br/>do (participants)<br/>experience<br/>(change) at<br/>(research site)?<br/>Ex. What are the<br/>calculus students'<br/>views of extended<br/>instructional time<br/>at Collier High<br/>School?</li> </ol> | Choose one type of<br>qualitative or<br>quantitative<br>research design.<br>Then, choose a<br>convergent,<br>explanatory<br>sequential, or<br>exploratory<br>research design.<br>Conduct both<br>studies. | Grocke, D., Bloch, S.,<br>Castle, D., Thompson,<br>G., Newton, R.,<br>Stewart, S., & Gold, C.<br>(2014). Group music<br>therapy for severe<br>mental illness: A<br>randomized<br>embedded-<br>experimental mixed<br>methods study. <i>Acta</i><br><i>Psychiatrica</i><br><i>Scandinavica</i> , <i>130</i> (2),<br>144-153.<br>doi:10.1111/acps.122<br>24 | Creswell, J.W. (2014).<br><i>Research design:</i><br><i>Qualitative,</i><br><i>quantitative, and</i><br><i>mixed methods</i><br><i>approaches (4<sup>th</sup> ed.).</i><br>Sage: Los Angeles,<br>CA.<br>Bishop, F. L. (2015).<br>Using mixed methods<br>research designs in<br>health psychology: An<br>illustrated discussion<br>from a pragmatist<br>perspective. <i>British</i><br><i>Journal Of Health</i><br><i>Psychology, 20</i> (1), 5-<br>20.<br>doi:10.1111/bjhp.1212<br>2 |  |  |

Page | 24

|   | Mixed Methods Research   |  |  |  |   |  |  |  |
|---|--|--|--|--|---|--|--|--|
| Type of Research<br>Design  | Purpose  | Research<br>Questions  | Data Collection<br>Tools and<br>Strategies   | Sample Research<br>Study   | Additional<br>Resources   |  |  |  |
| Transformative<br>Mixed<br>Methods         Image: Comparison of the second se | To invoke action<br>or a change in<br>behavior or<br>policy by<br>demonstrating<br>the need for<br>change by a<br>marginalized<br>group. | Dependent upon<br>the type of mixed<br>methods research<br>design that is<br>chosen:<br>explanatory,<br>exploratory, or<br>embedded and<br>the theoretical<br>framework: queer<br>theory, feminist<br>theory, critical<br>race theory, self-<br>efficacy<br>theoryetc. | Select a qualitative<br>theoretical<br>framework to use<br>throughout the<br>components of the<br>study i.e. problem<br>statement,<br>research questions,<br>purpose<br>statementetc.<br>and the call for<br>action. Select an<br>explanatory,<br>exploratory, or<br>embedded<br>research study to<br>conduct. | Buller, A. M., Hidrobo,<br>M., Peterman, A., &<br>Heise, L. (2016). The<br>way to a man's heart<br>is through his<br>stomach? A mixed<br>methods study on<br>causal mechanisms<br>through which cash<br>and in-kind food<br>transfers decreased<br>intimate partner<br>violence. <i>BMC Public</i><br><i>Health</i> , 161-13.<br>doi:10.1186/s12889-<br>016-3129-3<br>Brantmeier, N. K.<br>(2012).<br>Undergraduate<br>college student's<br>attitudes toward<br>Native Americans and<br>their Native studies<br>course experiences: A<br>critical mixed methods<br>study. (Doctoral<br>dissertation).<br>Retrieved from PQDT<br>Open. (UMI No.<br>3551599) | Creswell, J.W. (2014).<br>Research design:<br>Qualitative,<br>quantitative, and<br>mixed methods<br>approaches (4 <sup>th</sup> ed.).<br>Sage: Los Angeles,<br>CA.<br>Grant, C., & Osanloo,<br>A. (2014).<br>Understanding,<br>selecting, and<br>integrating a<br>theoretical framework<br>in dissertation<br>research: Creating the<br>blueprint for your<br>"house".<br>Administrative Issues<br>Journal: Education,<br>Practice, And<br>Research, 4(2), 12-26.<br>Mertens, D. M. (2010).<br>Philosophy in mixed<br>methods teaching:<br>The transformative<br>paradigm as<br>illustration. Internation<br>al Journal Of Multiple<br>Research<br>Approaches4 (1), 9-<br>18. |  |  |  |

|  |  | doi:10.5172/mra.2010. |
|--|--|-----------------------|
|  |  | 4.1.009               |

| Mixed Methods Research                   |  |   |   |   |  |  |  |
|--|--|---|---|---|--|--|--|
| Type of Research<br>Design               | Purpose  | Research<br>Questions   | Data Collection<br>Tools and<br>Strategies  | Sample Research<br>Study  | Additional<br>Resources  |  |  |
| Multiphase         Mixed         Methods | To evaluate or<br>study the impact<br>of a program or<br>event over a<br>period of time. | Dependent upon<br>the type of<br>qualitative,<br>quantitative, and<br>mixed methods<br>research designs<br>that are chosen.<br><b>Central research</b><br><b>questions:</b><br><b>1.</b> What<br>supported the<br>implementation of<br>(name of<br>program) at<br>(research site)?<br><b>Ex.</b> What<br>supported the<br>implementation of<br>the school choice<br>program at Urban<br>School District<br>10?<br><b>2.</b> What hindered<br>the<br>implementation of<br>(name of<br>program) at<br>(research site)?<br><b>Ex.</b> What<br>hindered the<br>implementation of<br>the school choice<br>program at Urban<br>School District<br>10? | A combination of<br>qualitative,<br>quantitative, and<br>mixed methods<br>research studies<br>are conducted.<br>Each research<br>study has a<br>common purpose<br>and the results are<br>used to plan the<br>other studies by<br>identifying variables<br>or other areas that<br>need to be studied<br>in more depth. | Field, T.A.<br>Implementing<br>dialectical behavior<br>therapy for<br>adolescents in an<br>acute inpatient<br>psychiatric setting.<br>(Doctoral dissertation).<br>Retrieved from PQDT<br>Open. (UMI No.<br>3620455)<br>Häkkinen, P. (2013).<br>Multiphase method for<br>analysing online<br>discussions. <i>Journal</i><br><i>Of Computer Assisted</i><br><i>Learning</i> , <i>29</i> (6), 547-<br>555.<br>doi:10.1111/jcal.1201<br>5 | Creswell, J.W. (2014).<br><i>Research design:</i><br><i>Qualitative,</i><br><i>quantitative, and</i><br><i>mixed methods</i><br><i>approaches (4<sup>th</sup> ed.).</i><br>Sage: Los Angeles,<br>CA.<br>Lisle, J. D. (2013).<br>Exploring the value of<br>integrated findings in a<br>multiphase mixed<br>methods evaluation of<br>the continuous<br>assessment program<br>in the Republic of<br>Trinidad and<br>Tobago. <i>International</i><br><i>Journal Of Multiple</i><br><i>Research</i><br><i>Approaches, 7</i> (1), 27-<br>49.<br>doi:10.5172/mra.2013.<br>7.1.27<br>Strudsholm, T.,<br>Meadows, L. M.,<br>Vollman, A. R.,<br>Thurston, W. E., &<br>Henderson, R. (2016).<br>Using mixed methods<br>to facilitate complex,<br>multiphased health<br>research. <i>International</i> |  |  |

| 3. Is (event or         program)         effective for         achieving         (desired         outcome) at         (research site)?         Ex. Is school         choice effective         for alleviating the         overcrowding in         schools for Urban         School District | Journal Of Qualitative<br>Methods, 1-11.<br>doi:10.1177/16094069<br>15624579 |
|---|--|
|   |  |

#### References

Barbour, M. K. (2015). Real-time virtual teaching: Lessons learned from a case study in a rural school. Online Learning, 19(5), 54-68.

Baturina, D. D. (2015). In expectation of the theory: Grounded theory method. *Methodological Horizons*, 10(1), 77-90.

Bazrafshan, A., Haghdoost, A., Rezaei, H., & Beigzadeh, A. (2015). A practical framework for evaluating health services management educational program: The application of the mixed-method sequential explanatory design. *Research & Development In Medical Education*, *4*(1), 47-54. doi:10.15171/rdme.2015.008

Bell, S. S., Taylor, E. P., McCallum, R. S., Coles, J. T., & Hays, E. (2015). Comparing prospective twice-exceptional students with high-performing peers on high-stakes tests of achievement. *Journal For The Education Of The Gifted*, *38*(3), 294-317. doi:10.1177/0162353215592500

Bishop, F. L. (2015). Using mixed methods research designs in health psychology: An illustrated discussion from a pragmatist perspective. *British Journal Of Health Psychology*, *20*(1), 5-20. doi:10.1111/bjhp.12122

Brantmeier, N. K. (2012). Undergraduate college student's attitudes toward Native Americans and their Native studies course experiences: A critical mixed methods study. (Doctoral dissertation). Retrieved from PQDT Open. (UMI No. 3551599)

Brown, A. V., & Thompson, G. L. (2016). The evolution of foreign language AP exam candidates: A 36-Year descriptive study. *Foreign Language Annals*, 49(2), 235-251. doi:10.1111/flan.12197

Bryant, L. C., Moss, G., & Zijdemans Boudreau, A. S. (2015). Understanding poverty through race dialogues in teacher preparation. *Critical Questions In Education*, *6*(1), 1-15.

Buller, A. M., Hidrobo, M., Peterman, A., & Heise, L. (2016). The way to a man's heart is through his stomach? A mixed methods study on causal mechanisms through which cash and in-kind food transfers decreased intimate partner violence. *BMC Public Health*, *16*1-13. doi: 10.1186/s12889-016-3129-3

Creswell, J.W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4<sup>th</sup> ed.). Sage: Los Angeles, CA.

Colorado State University. (n.d.). Narrative research design. Retrieved from http://edrm600narrativedesign.weebly.com/index.html.

Field, T.A. Implementing dialectical behavior therapy for adolescents in an acute inpatient psychiatric setting. (Doctoral dissertation). Retrieved from PQDT Open. (UMI No. 3620455)

Germeten, S. S. (2013). Personal narratives in life history research. *Scandinavian Journal Of Educational Research*, *57*(6), 612-624. doi:10.1080/00313831.2013.838998

Grant, C., & Osanloo, A. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your "house". *Administrative Issues Journal: Education, Practice, And Research, 4*(2), 12-26.

Grocke, D., Bloch, S., Castle, D., Thompson, G., Newton, R., Stewart, S., & Gold, C. (2014). Group music therapy for severe mental illness: A randomized embedded-experimental mixed methods study. *Acta Psychiatrica Scandinavica*, *130*(2), 144-153. doi:10.1111/acps.12224

Gog, M. (2015). Case study research. International Journal Of Sales, Retailing & Marketing, 4(9), 33-41.

Häkkinen, P. (2013). Multiphase method for analysing online discussions. *Journal Of Computer Assisted Learning*, 29(6), 547-555. doi:10.1111/jcal.12015

Hu, X., Turnbull, A., Summers, J. A., & Wang, M. (2015). Needs of Chinese families with children with developmental disabilities: A qualitative inquiry. *Journal Of Policy & Practice In Intellectual Disabilities*, *12*(1), 64-73. doi:10.1111/jppi.12110

Hudson, T., & Llosa, L. (2015). Design issues and inference in experimental L2 research. Language Learning, 6576-96. doi:10.1111/lang.12113

Ingham-Broomfield, R. (2016). A nurses' guide to mixed methods research. Australian Journal Of Advanced Nursing, 33(4), 46-52.

Karakul, A. K. (2016). Student resistance culture against school values: An ethnographic research. *Journal For Critical Education Policy Studies* (*JCEPS*), *14*(1), 17-43.

Koerber-T., M. K. (2014). Value-based teaching: A grounded theory of internalizing accountability in teaching documentation (Doctoral dissertation). Retrieved from PQDT Open. (UMI NO. 3647751)

Konaklı, T. (2015). Effects of self-efficacy on social entrepreneurship in education: A correlational research. *Research In Education*, (94), 30-43. doi:10.7227/RIE.0019

Kridel, C. (2016). An introduction to documentary research. Retrieved from http://www.aera.net/SIG013/Research-Connections/Introduction-to-Documentary-Research.

Mason, P., Augustyn, M., & Seakhoa-King, A. (2010). Exploratory study in tourism: designing an initial, qualitative phase of sequenced, mixed methods research. *International Journal Of Tourism Research*, *12*(5), 432-448.

Mertens, D. M. (2010). Philosophy in mixed methods teaching: The transformative paradigm as illustration. *International Journal Of Multiple Research Approaches*, *4*(1), 9-18. doi:10.5172/mra.2010.4.1.009

Neiswender, C. (2015). Bridgeworks: An exploratory mixed methods study of student transitions from noncredit to credit in mathematics (Doctoral dissertation). Retrieved from PQDT Open. (UMI No.3663039)

Park, J., & Park, M. (2016). Qualitative versus quantitative research methods: Discovery or justification? *Journal Of Marketing Thought*, *3*(1), 1-7. doi:10.15577/jmt.2016.03.01.1

Percy, W. H., Kostere, K. and Kostere, S. (2015). Generic qualitative research in psychology. *The Qualitative Report*, 20 (2), Article 5, 76-85, Retrieved from http://www.nova.edu/ssss/QR/QR20/2/percy5.pdf.

Price, P.C., Jhangiani, R.S., & Chiang, I.A. (2015). *Research methods in psychology (2<sup>nd</sup> Canadian ed.)*. B.C. Open Textbooks. Retrieved from https://opentextbc.ca/researchmethods/part/nonexperimental-research/.

Rashid, M., Caine, V., & Goez, H. (2015). The encounters and challenges of ethnography as a methodology in health research. *International Journal Of Qualitative Methods*, *14*(5), 1-16. doi: 10.1177/1609406915621421

Sbaraini, A., Carter, S.M., Evans, R.W., & Blinkhorn, A. (2011). How to do a grounded theory study: A worked example of a study of dental practices. *BMC Medical Research Methodology* 11 (128), 1-10. Retrieved from http://www.biomedcentral.com/content/pdf/1471-2288-11-128.pdfCachedSimilarby.

Selkow, N. N., Herman, D. C., Zhenqi, L., Hertel, J., Hart, J. M., & Saliba, S. A. (2015). Incidence and descriptive epidemiology of injuries to college ultimate players. *Journal Of Athletic Training (Allen Press)*, *50*(4), 419-425. doi:10.4085/1062-6050-49.3.73

Subedi, D. (2016). Explanatory sequential mixed method design as the third research community of knowledge claim. *American Journal of Educational Research, 4* (7), 570-577. doi: 10.12691/education-4-7-10. Retrieved from http://pubs.sciepub.com/education/4/7/10/.

Taghizadeh, Z., Vedadhir, A., Behmanesh, F., Ebadi, A., Pourreza, A., & Abbasi-Shavazi, M. J. (2015). Reproductive practices by patterns of marriage among Iranian women: Study protocol for an explanatory sequential mixed methods design. *Reproductive Health*, *12*(1), 1-8. doi: 10.1186/s12978-015-0080-1

Tavakol, M., & Sandars, J. (2014). Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part I. *Medical Teacher*, *36*(9), 746-756. doi:10.3109/0142159X.2014.915298

Thackeray, L. A., & Eatough, V. (2015). "Well the Future, That Is Difficult": A hermeneutic phenomenological analysis exploring the maternal experience of parenting a young adult with a developmental disability. *Journal Of Applied Research In Intellectual Disabilities*, 28(4), 265-275.

Tobin, J. (2014). Comparative, diachronic, ethnographic research on education. Current Issues In Comparative Education, 16(2), 6-13.

Turner, T. L., Balmer, D. F., & Coverdale, J. H. (2013). Methodologies and study designs relevant to medical education research. *International Review Of Psychiatry*, 25(3), 301-310. doi:10.3109/09540261.2013.790310

Venkatesh, V., Brown, S. A., & Sullivan, Y. W. (2016). Guidelines for conducting mixed-methods research: An extension and illustration. *Journal Of The Association For Information Systems*, *17*(7), 435-495.

Worthington, M. (n.d.). Differences between phenomenological research and a basic qualitative research design. Retrieved from http://a1149861.sites.myregisteredsite.com/DifferencesBetweenPhenomenologicalResearchAndBasicQualitativeResearchDesign.pdf.

Yang, L., & Myint Swe, K. (2016). Content analysis of the diagrammatic representations of primary science textbooks. *Eurasia Journal Of Mathematics, Science & Technology Education, 12*(8), 1937-1951. doi:10.12973/eurasia.2016.1288a

Yüksel, P. P., & Yıldırım, S. S. (2015). Theoretical frameworks, methods, and procedures for conducting phenomenological studies in educational settings. *Turkish Online Journal Of Qualitative Inquiry*, *6*(1), 1-20.