

# Theory to Methods: Three Case Studies

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Introduction	Quantitative	Mixed Methods	Qualitative	Conclusion
<p>Click <a href="#">here</a> to view introductory video.</p> <p>The purpose of this study, as represented in the poster, is twofold: First, it is to demonstrate distinct research methodologies, as used in three 2021 dissertations; and second, it is to demonstrate how theoretical foundations and ground methodologies inform their distinct research inquiries.</p> <p>The introduction of this poster lays out a broad spectrum of theoretical foundations from multiple points of view, as understood by a senior scholar, Dr. Joan Wink. Next, the poster compares three very distinct doctoral dissertation methodologies (qualitative, quantitative, and mixed methods) representing the broad continuum of research.</p> <p>The participants who view this poster will learn the how-to of each method of the dissertations as the three doctoral scholars paint a portrait of their inquiry, sample size, theoretical foundation, methods, and findings. The Conclusion of the poster will emphasize the why of each of the processes as Dr. Joan Wink makes connections between theory and methodology.</p> <p>During 2020-2022, I was on several doctoral committees, and I observed how the experiences of three specific doctoral candidates were vastly different depending on the program, the university, the chair of each committee, and the candidate herself. As a veteran professor of languages, cultures, and philosophies, I appreciate how important it is for each graduate student or educational professional to understand the broad spectrum of philosophies, be able to articulate each and to see how these various theories, perspectives, philosophies, turn from theory to practice in schools at all levels.</p> <p><a href="http://JoanWink.com">Joan Wink.com</a></p>	<p><b>Research Question</b> If and to what extent does a difference exist in the subjective wellbeing dimensions of engagement, perseverance, optimism, connectedness, or happiness of high school students before and after using an online mindfulness-based guided meditation application?</p> <p><b>Theoretical Foundation</b> Positive Psychology Theory (Seligman, 2009) emphasizes individual strengths, growth, resiliency, and happiness.</p> <p><b>Design</b> Quasi-experimental, single-group, pretest-posttest.</p> <p><b>Sample</b> 83 California high school students in grades nine through twelve.</p> <p><b>Analysis</b> A repeated measures MANOVA and a post hoc analysis evaluated for significance on each dimension.</p> <p><b>Results</b> The MANOVA was statistically significant, Roy's Largest Root = 1.07, <math>F(5, 78) = 16.64, p &lt; .001</math>, partial <math>\eta^2 = .52</math>, indicating that there were significant differences in wellbeing dimensions collectively before and after listening to the guided meditations application. A series of repeated measures ANOVAs were conducted to individually examine each dimension independently, which were all statistically significant. Engagement, <math>F(1,82) = 31.31, p &lt; .001</math>, partial <math>\eta^2 = .276</math>. Perseverance, <math>F(1,82) = 18.11, p &lt; .001</math>, partial <math>\eta^2 = .18</math>. Optimism, <math>F(1,82) = 67.34, p &lt; .001</math>, partial <math>\eta^2 = .451</math>. Connectedness, <math>F(1,82) = 12.61, p &lt; .001</math>, partial <math>\eta^2 = .133</math>. Happiness, <math>F(1,82) = 19.91, p &lt; .001</math>, partial <math>\eta^2 = .195</math>.</p> <p>Click <a href="#">here</a> to view the poster. Click <a href="#">here</a> to view the full defense video.</p>	<p><b>Research Question</b> How effective do undergraduate STEM students perceive the Mines Advantage leadership development program at South Dakota Mines?</p> <p><b>Methodology</b> This study was designed as an intrinsic case study (Stake, 1995) with elements of transcendental phenomenology incorporated to form an objective description of the participants' experiences (Moustakas, 1994). A pragmatic framework allowed for the collection of various forms of data and focused on the practical implications of the findings (Creswell &amp; Poth, 2018), and quantitative data was included to provide contextual information.</p> <p><b>Sample</b> Ten undergraduate science and engineering students.</p> <p><b>Data Collection and Analysis</b> Interviews with students served as primary source of data. Atlas.ti was utilized to analyze transcripts in an open coding process; analytic memoing process and axial coding were also utilized (Saldana, 2016). A chi-square test was also performed to compare the graduation rates of the 504 students who participated in the program (405 graduated) with the 2,963 students who did not participate in the program (1,403 graduated). Employing a .05 significance level for the test, a significant relationship was found between the variables, <math>X^2(1, N = 3,467) = 188.05, p &lt; .00001</math>.</p> <p><b>Results</b> Students generally believed the program benefited the development of their professional skills, but that some changes to logistics management and diversity curriculum were needed. Further the quantitative data indicated program highlighted a significant relationship between participation in the Mines Advantage program and student success (graduation rates).</p> <p>Click <a href="#">here</a> to view the full defense video.</p>	<p><b>Research Question</b> How can exploring stories at the intersection of landscape and linguistic literatures through engaging wildness, beauty, and imagination contribute to the global movement towards ecolinguistic justice?</p> <p><b>Theoretical Framework</b> <i>Lilyology</i>—Lilyology (Blair, 2015) lifts an Indigenous framework to expand voices represented in academia through integrative structures from the natural world.</p> <p><b>Methodology</b> <i>Scholarly Personal Narrative</i>—Scholarly Personal Narrative (SPN) falls within Narrative Inquiry. SPN combines vigorous scholarship with creative expression through Pre-Search, Me-Search, Re-Search, and We-Search (Nash and Bradley, 2011).</p> <p><b>Sample, Data Collection, and Analysis</b> Data gathering procedures revolved around analyzing 25+ years of personal journals for key scholarly themes that emerged from my Literature Review (ecolinguistics, landscape literature, Linguistic Human Rights) and then braided these experiences into five SPN narratives based on the data analysis intended for publication. The narratives were analyzed a second time through the structures of Lilyology. This inquiry reflects a method based on story and hopes to contribute to the storywork of SPN and expand its breadth and context through its integration of Lilyology.</p> <p><b>Results</b> To address the initial question of this inquiry and expand the research of ecolinguistics beyond academia and into creative landscape literature, each SPN will be submitted for publication. The selected journals reflect both creative landscape literature and peer-reviewed academic journals.</p> <p>Click <a href="#">here</a> to view the full defense video.</p>	<p>In this presentation, we shared three different philosophies of education and how each affected the experiences of these three doctoral candidates and their research.</p> <p>Our overarching goal is that each viewer of this poster presentation will come away with a deeper understanding of, not only a broad view of the various educational philosophies but also the ability to name and understand each to a greater degree.</p> <p>Ultimately, we want each of the viewers to understand their own philosophical grounding.</p> <p><b>Resources</b> Blair, N. (2015). <i>Privileging Australian Indigenous knowledge: Sweet potatoes, spiders, waterlilies, and brick walls</i>. Common Ground.</p> <p>Creswell, J. W., &amp; Poth, C. N. (2018). <i>Qualitative inquiry and research design: Choosing among five approaches</i> (4th ed.). SAGE Publications, Inc.</p> <p>Moustakas, C. (1994). <i>Phenomenological research methods</i>. Sage.</p> <p>Nash, R., &amp; Bradley, D. (2011). <i>Me-Search and re-search: A guide for writing scholarly personal narrative manuscripts</i>. Information Age.</p> <p>Saldana, J. (2016). <i>The coding manual for qualitative researchers</i> (3rd ed.). SAGE Publications, Inc.</p> <p>Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., &amp; Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. <i>Oxford Review of Education</i>, 35(3), 293–311.</p> <p>Stake, R. E. (1995). <i>The art of case study research</i>. SAGE Publications.</p>