Animated Analysis: Drawing Deeper Analytical Insights From Qualitative Data

Emily S. Ho1,2, F. Virginia Wright3,4, and Janet A. Parsons3,5

Abstract
While participant-created drawings in arts-based health research, used as a process of producing knowledge are well known, similar approaches with researcher-created drawings are less common. This article describes the journey of how researcher-created drawings as an arts-based analytical approach helped a novice researcher to draw deeper into the interpretive process. Emerging from a positivist paradigm, a proceduralist understanding of the qualitative methods was readily grasped by this researcher, but developing reflexivity and deep analytical insights required facilitation. An overarching interpretivist qualitative approach that aligns with Gadamerian philosophical hermeneutics was used to analyze participant observation data (field notes, researcher-created drawings) of decision-making encounters between families of youth with brachial plexus birth injuries and the health care team in the clinic setting. Drawing acted as an analytical catalyst such that the task of creating a visual product helped this researcher to look beyond descriptive, factual and procedural information in participant observation data. Drawing created spontaneity that fostered freedom to interpret, while hermeneutic reflection created self-dialogue about understandings that arose from all data sources. Reflexivity was cultivated through deliberating on the creative process that resulted in choices of composition and content to represent the observed sessions. Drawing can help qualitative researchers animate their analyses through a visible and accountable method of constructing new knowledge.

Keywords
arts-based health research, researcher-created drawings, participant observation, reflexivity, philosophical hermeneutics

Prologue
Embarking on any journey can be exhilarating but also stressful, especially when venturing into unfamiliar terrain. Careful pre-trip planning to pack the appropriate gear and map your travel route can help avoid misadventures, but sometimes it is the unexpected turns or experiences of being lost that make a trip most meaningful and memorable. This article is about how I, as a novice qualitative researcher, embraced the unexpected path of an arts-based approach which transformed my positivist approach to an interpretivist one. In essence, it is about my reflexive journey that was guided on this path of discovery by my co-authors (VW, JP), who served as senior scholars, mentors, and traveling companions who contributed to the writing that follows.

A Journey’s Beginning
Let us start with my roots as a researcher. After many years as a clinical occupational therapist specializing in the evaluation and rehabilitation of children with brachial plexus birth injuries, I began researching surgical and rehabilitative outcomes in this population. My research approach was influenced by the predominant positivist paradigm that shaped my clinical training.

Claiming My Positivistic Baggage
During my clinical training in the 1990s, evidence-based medicine (EBM) was on the rise. Sackett and colleagues called us to practice “conscientious, explicit and judicious use of current

1 Department of Occupational Science and Occupational Therapy, University of Toronto, Ontario, Canada
2 Division of Plastic and Reconstructive Surgery, The Hospital for Sick Children, Toronto, Ontario, Canada
3 Department of Physical Therapy, University of Toronto, Ontario, Canada
4 Bloorview Research Institute, Toronto, Ontario, Canada
5 Li Ka Shing Knowledge Institute, St. Michael’s Hospital, Ontario Canada

Corresponding Author:
Emily S. Ho, Department of Occupational Science and Occupational Therapy, University of Toronto, 500 University Avenue, Rm 926, Toronto, Ontario, Canada MSG 1V7.
Email: emilys.ho@utoronto.ca
best evidence in making decisions about the care of the individual patient” (Sackett et al., 1996), urging us to track down the best external evidence to answer our clinical questions. In EBM, objective, quantitative and statistical data are valued (Henry, 2006), and qualitative methods are considered subjective, and thus assumed to have little relevance for EBM (Sandelowski, 2004). In following EBM, I placed less value on evidence generated by personal knowledge and sought to build my research upon methodologies with high internal validity.

In the 2000s, the landscape of Western medicine shifted with a greater recognition of the gap between knowledge and practice. There are a diversity of terms related to generating evidence and supporting its use in health care policy and practice (Colquhoun et al., 2014). The process of putting knowledge into action is called Knowledge Translation (KT), while Implementation Science aims to understand all aspects of carrying out health interventions in the real-world setting (Peters et al., 2013). Studying KT and Implementation Science requires both understanding and evaluating complex topics underlying the behaviors and attitudes involved in processes (i.e., why and how people do things) that are difficult to quantify and measure (Peters et al., 2013; Straus et al., 2009). As a result, there was renewed interest in research that is practical, accessible, and applicable. Along with this came an increasing interest in qualitative approaches to research which are well-suited to exploring the personal and cultural aspects of health, living and managing the impacts (i.e., physical, psychological, social) of disease, decision-making, and the contextual (i.e., historical, social and political) aspects of health conditions and care (Sandelowski, 2004).

Within this changing landscape, I desire arose within me to measure outcomes that matter most to the children and families in my practice. In response, I enrolled in doctoral studies to enrich my understanding of families’ experiences of making treatment decisions and then to develop a patient decision aid to support them in this process. These aids are designed to help individuals make health decisions, such as choosing between different treatment options. They contain evidence-based information and an exercise (e.g., worksheet) to help individuals clarify the value they place on the benefits, harms and scientific uncertainties of their treatment options (Stacey et al., 2014).

My initial step in formally developing a decision aid was to conduct a needs assessment of the decision aid stakeholders (e.g., patients, health care team). This entails exploring the decision, decision-making process and the values placed on the evidence. The methods recommended to gather this information are focus groups, interviews, and direct observation (Coulter et al., 2012). I was unfamiliar with these methods as I had primarily conducted quantitative observational and measurement studies. For me, this meant learning qualitative methodology.

Coming from a positivist paradigm, I gravitated towards the texts written by Creswell and Patton to orient me to qualitative approaches (Creswell, 1998, 2003; Patton, 2002). These texts are procedural and provide a practical framework on how to design qualitative research. For example, Creswell provides several tables that compare and contrast quantitative and qualitative approaches, and these ease the introduction for those familiar only with the former approach (Creswell, 2003). He introduces the idea of knowledge claims to describe and explain the elements of epistemology and how the researcher’s epistemological stance informs and influences the research design which leads to the choice of methodology and methods. Then, an overview of the types of methodology (e.g., phenomenology), methods (e.g., focus groups), and sampling used in “the qualitative approach” are outlined. These texts provide stepwise and practical frameworks on how to design qualitative research which aligned with my positivist presumptions of the foundational methodological knowledge and rigor I needed. As a novice researcher, I felt comfortable with this procedural approach to qualitative research and it seemed a logical place to dive into the process.

**Reflexive Journey**

Equipped with this procedural view of qualitative research, I wrote a doctoral thesis proposal to develop a patient decision aid for youth with brachial plexus birth injury (BPBI) that would allow them to engage in shared decision making with their parents and health care team when deciding among treatment options for an elbow flexion contracture. In alignment with decision aid development methodologies described above, the initial step in my doctoral work was to conduct a decisional needs assessment of youth with BPBI, their parents, and health professionals. My plan included employing active participation, observation, and naturalistic recording (i.e., field-notes) to collect participant observation data of decision-making encounters between families and the health care team in the clinic setting. In addition, youth-parent dyads would be interviewed to provide rich accounts of their decision-making experiences. Consistent with my gravitation towards procedural sources, I chose to follow Lofland’s guide to structure my field-notes (Lofland et al., 2005) and devised a data analysis plan that borrowed analytical processes from the tradition of grounded theory (e.g., constant comparative method) (Charmaz, 2000; Corbin & Strauss, 2015) and Braun and Clarke’s six steps to thematic analysis (Braun & Clarke, 2006). These methods are practical, orderly, and have an objectively reproducible process.

Given that my understanding of qualitative methodology up to this point was task oriented, I felt confident that I knew what to do. Then, I enrolled in an introductory course on qualitative research with a strong focus on theory to formally advance my knowledge. During this course, I came to realize that although I had confidence in what to do, I did not know how to do it. I recall the pivotal experience of reading, “How Medicine Constructs Its Objects” in Byron J. Good’s text “Medicine, Rationality, and Experience” (Good, 1994). This was an assigned reading for the first lecture which introduced the topic of paradigms of inquiry. As I read it, I focused as usual on content. I was intrigued with Good’s perspective of how language, acts and meanings are constructed and adopted
by those who practice Western medicine. However, in focusing on content, I missed the point of the reading assignment. In class, what later ensued was a discussion on how Good’s view of medicine as symbolic forms was shaped by the writings of Cassier, who was influenced by Kant before him. This confused me. While I was focused on the substantive, the lesson was aimed instead at understanding the author’s journey in developing his interpretive lens. On reflection, I recognized how my then positivistic view clouded my ability to see through an interpretive lens and created this unsettling disconnect.

As I moved forward with the next stages of my research proposal, I needed to come to terms with this disconnect and take steps to resolve it. To this end, I delved deeper into my readings to compare and contrast several interpretive approaches to determine which aligned with my epistemological viewpoint. At that time, I was assured of my social constructionist views and was delving deeper into the work of Heidegger, Merleau-Ponty, Gadamer, and Van Manen. I thoughtfully compared and contrasted their works to ascertain the approach that aligned with my epistemology and methods (i.e., in-depth interviews, participant observation). I discovered that the work of Gadamer (Gadamer, 2006) resonated with my interpretivist stance. Gadamer’s approach was well-suited to generating knowledge and understanding through interpreting the meanings that youth and parents assign to their decision-making experiences. In the context of creating a patient decision aid, I was becoming more comfortable in acknowledging that my judgments (e.g., my clinical knowledge of patient population, experience, and assumptions) and sociohistorical biases brought understanding to the expressed decisional needs of youth, parents and the health care team. I recognized that knowledge is created through an ongoing process alongside these participants through dialogue, interactions and situational contexts (Schwandt, 2000).

Reading Gadamer was the turning point that gave me the self-assurance to critique the confused, dissonant, and ultimately unsatisfying experience I had during the introductory course on qualitative research. I considered Gadamer’s “horizon” (Gadamer, 1975): what were the historical and situational perspectives that I had at the time of the course about the nature of research and how new knowledge is generated? I realized that I was held back by the prejudices that I held regarding data analysis. Although I understood that qualitative analysis requires interpretation, I grappled with the idea that the researcher, in this case me, was the main data analysis tool. At that pivotal point, which I liken to Gadamer’s fusion of horizons (Gadamer, 1975) a new understanding of what qualitative analysis entailed birthed within me. This experience opened my eyes to the importance of reflexivity (Finlay, 2002). I became acutely aware that the richness and depth in interpretation of my work depended on my own reflexivity, and awoke to the responsibility of being a key analytical tool in my research. I knew needed to cultivate reflexivity and pondered, “how and why I know what I know.” I understood the idea of reflexivity, but I didn’t know what it entailed or how to do it well.

The Solution: An Arts-Based Approach

As I considered the uncharted road that lay ahead for my data analysis, I felt that adopting an interpretivist viewpoint would require intentional training. From my perspective, an intervention was required to bring my research up to the level that I desired. Serendipitously, I received an invitation by a faculty member at my university to act as a rapporteur and graphic recorder for an academic workshop. A community partner at this meeting was interested in using graphic facilitation as a visual method to promote group thinking (Sibbet, 2010). Being someone who dabbled with doodling while taking lecture notes, I was keen to volunteer for the job. This involved creating and integrating information in a visual format (i.e., posters, mural) during the group meeting (Figure 1). Graphic recorders synthesize the knowledge and ideas shared and discussed at a meeting into a visual display without direct interaction (e.g., seeking feedback and content contributions) with the participants. I actively listened to the content shared and analyzed central ideas, all the while drawing key concepts. I moved throughout the display to expand on existing graphics or decisively drew new graphics to represent an important idea. In essence, I recorded real-time minutes of the meeting in the form of a large pictorial display. Mine was a novice’s attempt at visual thinking, largely a synthesis of ideas shared using graphic metaphors, but through this process I discovered that drawing was a springboard to think differently. Indeed, it freed me to interpret information. My horizon of understanding was visually displayed by the choices I had to make to attend to and represent one idea while passing over others. When I looked at the completed tangible product, I pondered “Why I did I draw what I drew?” In this way, drawing sparked my interpretive lens. Might drawing become the answer to my quest to be more reflexive in my own research?

After this experience, I looked into how researcher-created drawings can be applied to analyze and represent qualitative data which informed my decision to use an arts-based approach. There has been a proliferation of arts-based methodologies used in health research in recent years. Such methodologies have been found to be effective in the field of KT-producing and disseminating research in creative ways and reaching a diverse audience (Boydell et al., 2016). Drawing is a visual art technique well described by arts-based health researchers as an avenue of knowledge production, but largely centered around the participant (Guillemin, 2004). I found less written about the use of researcher-created drawings as an analytical tool. In 2012, Boydell et al., published a scoping review of arts-based health research which included eight studies that involved drawing. All eight used participant-created drawings as a data collection tool to aid analysis, but none used researcher-created drawings (Boydell et al., 2012).

Animated Analysis

Equipped with this information from the literature, I applied what I had learned about participant-created drawings to...
employ researcher-created drawings to aid my interpretation of participation observation sessions in the clinic setting. While I sat quietly in the clinic room to gather data through observation, I took field notes guided by Lofland’s guide: acts, activities, meanings, participation, relationships, and settings (Lofland et al., 2005). I used a tablet interface (12.9” iPad Pro), digital stylus (Apple Pencil), and a drawing app (Adobe Photoshop Sketch) to create an interpretive drawing after each observation session. Using graphic elicitation techniques (Bagnoli, 2009), I strived for deeper insights regarding my participants’ experiences, and used metaphors to bring my ideas to life. As an artist, I inherently adhere to artistic rules of compositional interpretation to create a visual product. Thus, I used spatial organization and composition to bring attention to relationships between participants and/or ideas, while color was applied to link ideas and convey emotional tones (Rose, 2001; Weber, 2012). I realized in hindsight that sometimes the choice of signs, position, color and composition was done intentionally during the design process. However, for the most part, after I considered the story and main message, drawing was a spontaneous process. As I pondered my own creative process used to draw the image, I was reflexive in deliberating my choices of content and design. I critiqued my own understanding of what was observed and expressed such that I had internal dialogues that compared and contrasted my observations of the events with my interpretations in the drawings. My interpretive analysis of the observed interactions and decisional needs of the participants emerged through this process of animated analysis.

As I collected more data, I became increasingly aware of how drawing deepened the analytical process related to my interpretations of the participant observation data. One way this came to me was when I contrasted the insights captured and generated from my written field notes to ideas arising with my drawings. My written field notes were descriptive and clearly detailed Lofland’s categories of acts, activities, participation, and settings, but were more stilted when it came to observations associated with meanings and relationships. The following excerpts are taken from my field notes of the second family I observed:

Setting: The OT/PT room is stifling. The room is hot, no air circulation. There is small examination table when you walk into the room (~ 8’ x 8’ room). The right side of the room is lined with wall cabinets, and a counter with base cabinets connected to a desk with a computer on top. The countertop is cluttered with a hydrocollator, wax machine and serger machine. There is barely room on top of the desk beside the computer because of piles of boxes and papers. In the middle of the room is a small examining table beside a low height filing cabinet that is cluttered with toys on top. On the left of the room is a plinth. Along the far wall is high open shelves and the wall is lined with mirrors that are decorated with children’s drawings. In front of the mirror are three green chairs where the family have chosen to sit.

Acts: MD comes in first with the entourage behind him, and immediately asks the teen to stand up. He checks out the teen’s passive range of motion of the forearm, and states that he doesn’t feel any movement. Then, proceeds to ask the resident to move the teen’s forearm while everyone watches on. Dad appears concerned while the team is examining the teen’s forearm, and he asks if the lack of passive range of motion of the forearm is an issue. MD describes that it does not because she will have a fixed permanent position afterwards [after surgery], and this fixed position is more functional. It will help the hand to be in a practical position in space for function.

I found that while the use of Lofland’s guide was helpful in providing structure to my observations, it did not foster or encourage in-depth interpretation. The codes I generated from my drawings offered greater data on relational processes and associated meanings of the interactions observed than my field notes. This allowed me to “be” a better analytical tool. In contemplating my interpretive practice, the words of Van Manen, which provide guidance on applying phenomenology as a research approach, came to mind. Van Manen warned of the danger of relying on step by step analytical processes, stating...
that “Prescriptive procedural schemes are addictive to newcomers, because they offer themselves as technical solutions to inquiries that should require scholarly thoughtful insight and creative thought” (van Manen, 2016, p. 211). In his view, procedural methods or descriptive-interpretive steps undermine a researcher’s inclination to deepen him or herself. These warnings seemed to apply to my work, as the use of Lofland’s guide was a structured approach provided me comfort and reassurance that I would “get the data,” but I realized that this overly procedural approach was actually hindering my ability to ponder, think, interpret and find meaning in the data.

In contrast, as I contemplated my drawings alongside their corresponding text-based field notes, I realized that drawing enabled me as a researcher to leap directly from description to interpretation. It focused my attention on the gestalt instead of specific facts or procedures. Limiting myself to one drawing per observation session also made me prioritize what was important to represent. I had to slow down, take a step back, and ponder the main overarching message. At the same time, I honed in on key ideas and connected inter-related items that I had drawn to tell a coherent story. An example of my researcher-created drawing of the same observation session as the above field notes is shown in Figure 2. When I drew immediately after the session, I felt encouraged to synthesize ideas in a highly efficient manner to communicate a holistic message. There was an aspect of spontaneity that occurred while I drew, which as a novice researcher, gave me confidence and freedom to interpret.

One potential downside of this freedom was that my assumptions could be left unchecked. As such, I was intentional in using the iterative process of analyzing my data from text (i.e., field notes, transcribed interviews) and drawings to consider all the complexities and relations that might have been missed. My internal dialogue was very critical to this process as well as discussion with research team and participants which pushed me to look deeper into the data as well as re-examine some of my interpretations. Gadamer spoke of the importance of this process, calling it hermeneutic reflection (Gadamer, 2006). My hermeneutic reflection was aided by drawing as the ideas represented in the finished drawing were used to consider my own presumptions and preconceptions about the decisional needs of my participants, while considering the meaning of the linguistic expression used by the participants during their interviews. For example, I considered the meaning of social and cultural contexts as well as family roles represented in my drawings with those expressed in the experiences shared and the words chosen. I found it helpful to look at the drawing while listening to and reading transcripts to create a dialogue with myself to contemplate and check my interpretations. Overall, the spark of the researcher-created drawing ignited the engine that enabled me to journey into a deeper interpretive process.
Conclusion: Arriving at “Home”

The lessons learned from my journey to free myself from the stronghold of the positivist paradigm have been invaluable to my development as a qualitative researcher. Being reflexive with respect to my own limitations as a researcher created opportunities to discover new strengths including the added value of using an arts-based approach. Drawing, as an arts-based method, was the essential catalyst for me to develop a strong interpretivist approach. As a structured task (i.e., making an actual drawing), it suited my positivist predisposition. On the other hand, the process of drawing freed my creative abilities, allowing me to see the data in a different way. At times, I was unaware of where my creative ideas came from. As such, in contemplating their origins, my interpretative lens widened.

As a concluding point, I feel compelled to bring forward Boydell et al.’s appeal to arts-based health researchers to explicitly address the question of why the arts matter (Boydell et al., 2012). In this case, why is art essential to the research process? I have come to recognize that the creative process of animating my data was essential catalyst to my development as a qualitative researcher, allowing me to deepen my interpretative analysis and foster reflexivity and challenge my predominant positivistic view. In sharing my path to discovering how animated analysis deepened my qualitative work, I hope other researchers will embrace this visible and accountable arts-based method to enrich their journey of constructing new knowledge.

Acknowledgment

The content of this manuscript, in part, has been used by the first author for personal use in a dissertation that will not be published commercially. The work in this manuscript was awarded the Best Doctoral Poster Award at the Rehabilitation Sciences Institute Research Day, University of Toronto, May 17th, 2017. The content of the abstract, in part, was published in the conference proceedings of this academic event with the same title. Ho ES, Parson JA, and F Wright V. Animated Analysis: Drawing Deeper Analytical Insights from Qualitative Data

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was funded by the SickKids Perioperative Services Innovation Fund.

ORCID iD

Emily S. Ho https://orcid.org/0000-0003-4082-1770

References

Bagnoli, A. (2009). Beyond the standard interview: The use of graphic elicitation and arts-based methods. *Qualitative Research, 9*(5), 547–570. https://doi.org/10.1177/1468794109343625

Boydell, K. M., Gladstone, B., Volpe, T., Allemang, B., & Stasiulis, E. (2012). The production and dissemination of knowledge: A scoping review of arts-based health research. *Forum Qualitative Social Research, 13*(1), 1–30. http://nbn-resolving.de/urn:nbn:de:0114-fqs1201327(1)

Boydell, K. M., Hodgins, M., Gladstone, B., Stasiulis, E., Belliveau, G., Cheu, H., Kontos, P., & Parsons, J. (2016). Arts-based health research and academic legitimacy: Transcending hegemonic conventions. *Qualitative Research, 16*(6), 681–700. https://doi.org/10.1177/146879411660040

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1177/1478088706063063a

Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. Denzin & Y. Lincoln (Eds.), *The handbook of qualitative research* (2nd ed., pp. 509–535). Sage Publications.

Colquhoun, H., Leeman, J., Michie, S., Lokker, C., Bragge, P., Hempel, S., McKibbon, K. A., Peters, G. Y., Stevens, K. R., Wlison, M. G., & Grimshaw, J. (2014). Towards a common terminology: A simplified framework of interventions to promote and integrate evidence into health practices, systems, and policies. *Implement Science, 9*(51), 1–6. https://doi.org/10.1186/1748-5908-9-51

Corbin, J., & Strauss, A. (Eds.). (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. SAGE.

Coulter, A., Kryworuchko, J., Mullen, P. D., Ng, C. J., Stilwell, D., & Van der Weijden, T. (2012). Using a systematic development process. In R. J. Volk & H. A. Llewellyn-Thomas (Eds.), 2012 Update of the international patient decision aid standards (IPDAS) collaboration’s background document. Chapter A. http://ipdas.org.ca/resources.html

Creswell, J. (1998). Designing a qualitative study. In J. Creswell (Ed.), *Qualitative inquiry and research design: Choosing among five traditions* (pp. 13–26). Sage Publications.

Creswell, J. (2003). A framework for design. In J. Creswell (Ed.), *Research design: Qualitative, quantitative, and mixed methods* (pp. 3–26). Sage Publications.

Finlay, L. (2002). “Outing” the researcher: The provenance, process, and practice of reflexivity. *Qualitative Health Research, 12*(4), 531–545. https://doi.org/10.1177/104973202129120052

Gadamer, H. G. (1975). *Truth and method*. Bloomsbury Academic.

Gadamer, H. G. (2006). Classical and philosophical hermeneutics. *Theory Culture Society, 23*(1), 29–56. https://doi.org/10.1177/0263276406063228

Good, B. J. (1994). How medicine constructs its objects. In B. J. Good (Ed.), *Medicine, rationality, and experience: An anthropological perspective* (pp. 65–87). Cambridge University Press.

Guillemin, M. (2004). Understanding illness: Using drawings as a research method. *Qualitative Health Research, 14*(2), 272–289. https://doi.org/10.1177/1049732303260445

Henry, S. G. (2006). Recognizing tacit knowledge in medical epistemology. *Theoretical Medicine and Bioethics, 27*(3), 187–213. https://doi.org/10.1007/s11107-006-9005-x

Lofland, J., Snow, D., Anderson, L., & Lofland, L. (2005). *Analyzing social settings: A guide to qualitative observation and analysis* (4th ed.). Wadsworth Publishing Company.
Patton, M. (2002). Designing qualitative studies. In M. Patton (Ed.), *Qualitative research and evaluation methods* (3rd ed., pp. 207–257). Sage Publications.

Peters, D. H., Adam, T., Alonge, O., Agyepong, I. A., & Tran, N. (2013). Implementation research: What it is and how to do it. *BMJ, 347*(f6753). 1–7. https://doi.org/10.1136/bmj.f6753

Rose, G. (2001). *Visual methodologies*. Sage Publications.

Sackett, D. L., Rosenberg, W. M., Gray, J. A., Haynes, R. B., & Richardson, W. S. (1996). Evidence based medicine: What it is and what it isn’t. *British Medical Journal, 312*(7023), 71–72. https://doi.org/10.1136/bmj.312.7023.71

Sandelowski, M. (2004). Using qualitative research. *Qualitative Health Research, 14*(10), 1366–1386. https://doi.org/10.1177/1049732304269672

Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry. In T. A. Schwandt (Ed.), *Handbook of qualitative research* (pp. 189–213). Sage.

Sibbet, D. (2010). Graphics for visual thinking: Mapping ideas and finding key patterns. In D. Sibbet (Ed.), *Group graphics: Seven ways to write on the wall* (pp. 107–132). The Grove Consultants International.

Stacey, D., Legare, F., Col, N. F., Bennett, C. L., Barry, M. J., Eden, K. B., Rovner, M. H., Thomas, H. L., Lyddiatt, A., Thomson, R., Trevena, L., & Wu, J. H. (2014). Decision aids for people facing health treatment or screening decisions. *Cochrane Database Systematic Reviews, 1*, CD001431. https://doi.org/10.1002/14651858.CD001431.pub4

Straus, S. E., Tetroe, J., & Graham, I. (2009). Defining knowledge translation. *Canadian Medical Association Journal, 181*(3-4), 165–168. https://doi.org/10.1503/cmaj.081229

van Manen, M. (2016). *Phenomenology of practice*. Taylor and Francis.

Weber, S. (2012). Visual images in research. In J. G. Knowles & A. L. Cole (Eds.), *Handbook of the arts in qualitative research: Perspectives, methodologies, examples, and issues* (pp. 42–54). Sage Publications.