Empathy Through Inquiry: The Weaving Of (post) Qualitative Inquiry Into Design

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EMPATHY THROUGH INQUIRY: THE WEAVING OF (POST) QUALITATIVE INQUIRY INTO DESIGN

by

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DISSERTATION

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NAVIGATING THIS DISSERTATION ASSEMBLAGE

This dissertation assemblage aims to bring two seemingly different/unrelated areas of study together to form a new way of thinking/doing design. Whether you are coming from design or from the qualitative methodology space, there might be thinking/concepts/theories/methodologies that are unfamiliar to you. However, as we will explore later in this dissertation assemblage, both fields have described themselves as uncertain/uncomfortable (Brown, 2008; Cross, 2001; Nordstrom & Ulmer, 2017; St. Pierre, 2015; Tracey & Hutchinson, 2016). This dissertation assemblage may evoke some of those same feelings of uncertainty/ambiguity. I would invite you to embrace this feeling and allow it to guide/propel your journey through the experience of this paper. I would encourage you to jump around, skip, return, and re-read sections of this dissertation assemblage. This dissertation assemblage may even change some of the fundamental beliefs of what knowledge/truth/research is and can be/come. I welcome you to explore this paper/dissertation/research/inquiry/assemblage/design in any way that helps you to fully embrace the experience of this project.

This dissertation assemblage is written with some key post qualitative traditions at play. One of the key theories or traditions at play is working within/against structure (Derrida, 1967/2016; Derrida & Caputo, 1997). Each plateau, or section, of the dissertation assemblage is written to accomplish a key goal of this inquiry project. Therefore, in taking up the Deleuzoguattarian theory of a rhizome, a reader may start with any section and follow the lines of flight through the dissertation assemblage (Deleuze & Guattari, 1980/1987). However, I have attempted to organize the plateaus in a way to help a reader
navigate the assemblage in a somewhat linear fashion while still allowing the rhizome to take flight and flourish.

**Key Traditions/Concepts**

This section will attempt to provide a brief background and understanding for those new to post qualitative inquiry and its many unique concepts/traditions taken up in this dissertation assemblage. These descriptions are only meant to provide a brief overview of the concept and their use in the writing that follows. I have not attempted to define these terms because that would be going against the post-structural philosophy of assigning a fixed meaning to a word/sign. The concepts below are only described in the context of their use in this project. They are multifaceted, and to fully understand them, one must follow the post qualitative tradition of “keep reading” (St. Pierre, 2015).

**Sous Rature**

*Sous rature*, or writing “under erasure,” is a concept leveraged heavily by Derrida in his writing on language. To put a word “under erasure” is to state that the word is insufficient for the context it is being used within, yet it is needed for the meaning of the sentence to exist. *Sous rature* “is to write a word, cross it out, and then print both word and deletion (since the word is inaccurate, it is crossed out. Since it is necessary, it remains legible)” (Derrida, 1967/2016, p. xiv). In some cases, a second word is added after the crossed-out word that might better describe the true meaning intended. Some examples include: dissertation-assemblage, linear, problem opportunity.
**Assemblage**

An assemblage is a multiplicity that contains a collection of experiences, knowledge, ideas, and being that territorializes the human, the more-than-human, and the non-human onto a plane of consistency from the strata (DeLanda, 2016; Deleuze & Guattari, 1980/1987). This assemblage functions as a whole but is always evolving and changing from interacting with the milieu (Deleuze & Guattari, 1980/1987).

**Rhizome**

Rhizomes are complex multiplicities that are interconnected to itself (Deleuze & Guattari, 1980/1987). A rhizome is non-hierarchical and has many entry and exit points and lacks a defined structure. One may enter a rhizome at any point and reach any other point (Deleuze & Guattari, 1980/1987).

**Différance**

Derrida (1982) created the concept of différance to discuss how a signifier (word) does not have a universal meaning for the signified (meaning). In taking up the concept of différance, one sign or signifier might have multiple signified concepts. For example, the sign “water” might signify water drops, the chemical notation of H20, a lake, a pool, etc. (Guillemette & Cossette, 2006).
THE PATH TO THE OPENING

Designers have a multitude of methods, models, frameworks, and processes they might leverage when designing. Learning designers may use structured, step-by-step models that are presented in the literature and in many introductory instructional systems design (ISD) texts (Dick & Carey, 1978; Smith, K. M. & Boling, 2009). Learning design scholars have been pulling from engineering and computer science design processes for many decades, and just recently have been looking to design fields, such as industrial design, graphic design, etc., for processes and methods they can transform into instructional design models. Many designers, including those in instructional design, have taken up human-centered design approaches, such as design thinking or empathic design, to design, and in recent years, learning design scholars have begun to research how it is used within instructional design.

Design thinking is a design-based problem-solving approach that can be used to solve ill-defined or “wicked” problems—opportunities in organizations (Buchanan, 1992; Cross, 2006, 2011; Rittel & Webber, 1973). Design thinking is one approach that might be taken up by designers to solve talent development problems—opportunities in organizations. Human-centered design requires empathy and understanding of the learner to help identify/define the true problem—opportunity from their perspective (Brown, 2008). After a problem—opportunity has been defined, designers use empathy to design a solution to that problem—opportunity that is centered around the needs, motivational factors, and personalities of our learners (Brown, 2009). Designers who take up user-centered design focus on designing for the learner within the context of the learning experience. They focus
on how the learner will learn/intra-act with the experience, content, other learners, and the overall environment of the learning experience.

There are several existing techniques or methods that designers take up to leverage empathy in their designs. Some designers rely on their experiences and past designs as a point of reference, while others go through a design research process. Both of these methods can lead to successful outcomes and be used together. They may lead to even better design products to help organizations and the people within them improve their performance.

Designers need to understand their end users and the worlds in which they live. This need has led many designers to look to research methods for ways of accomplishing this. Some designers have tended to rely on interpretive qualitative research methods to gain this understanding. This intersection of design and qualitative methods has developed into a field of study on design research. Design research primarily follows interpretive qualitative traditions. However, design research has not been widely used in learning design.

Qualitative inquiry is inherently people-focused and uses personal connections as key data collection techniques (Denzin & Lincoln, 2018). These personal connections allow the researcher to gain empathy for their participants by having a deep understanding of their story. Similar to designers, scholars who take up qualitative methods are attempting to understand their participants and the world they experience to help answer research questions. Many design scholars have proposed that observation is key to gaining empathy in order to experience what your end-user experiences. This is a natural fit with
ethnography as well as other conventional qualitative methods. As designers, we are taking up similar methodologies to discover and define design problems and opportunities and are leveraging empathy as a framework to design solutions to organizational problems and opportunities.

Many organizations (i.e., IDEO and Xerox) hire anthropologists to work in their design firms to conduct research to inform the designs. These design anthropologists complete ethnographic fieldwork, either exclusively or in conjunction with the designers, to gain empathy and help define the design problem opportunity and questions. Several authors have published work on design anthropology (Clarke, 2018; Gunn, Otto, & Smith, 2013; Pink, 2014).

Most conventional qualitative methods are linear and follow a prescribed process. One of the most radical of the design research methods comes from Sarah Pink (2013) and her work with visual and digital ethnography in design. These are less structured approaches to research but still follow a somewhat linear approach.

The design literature has acknowledged that design models and frameworks are limiting, and we should move to a less structured approach to design (Smith, K. M. & Boling, 2009). This caused learning designers to rely more on methods such as design thinking. Many human-centered design methods rely on mindsets or ways to think in/through the design process (Lawson, 2005). Due to this shift to mindsets and less structured design methods, design has been described as uncertain (Ball, Onarheim, & Christensen, 2010; Tracey & Hutchinson, 2016). Designers must navigate the space between what is and what might be to design innovative learning experiences. Throughout
this process, designers have become skilled at exploring many ideas at once and not accepting one design as an absolute. Through the iterations on design, designers explore the many possibilities to determine, further explore, or define their design opportunities and refine their designs (Dorst & Cross, 2001).

Qualitative methods have also become rigid, structured, and prescriptive, aimed at determining a positivist “truth” (St. Pierre, 2011). Therefore, following these conventional methods may cause designers to revert to linear design processes. This calls for a more Radical methodology for research and inquiry in both traditional research contexts and the field of design.

Qualitative methodologists have been in the process of developing a more Radical, free, and nonlinear method for research. The recent and emerging movement within the field of qualitative inquiry is to move toward what scholars are calling “post qualitative” inquiry (Lather & St. Pierre, 2013; St. Pierre, 2011). Post qualitative inquiry has been ever growing and expanding the possibilities for research (Nordstrom & Ulmer, 2017).

Post qualitative inquiry takes up “post” theories to critique the structural, humanistic ontologies, epistemologies, and methodologies of traditional qualitative research (Lather & St. Pierre, 2013). Scholars who take up post qualitative methods typically use “post” theories and concepts as the basis of their research methods instead of structured methodologies typically used in qualitative inquiry (Lather & St. Pierre, 2013; St. Pierre, 2011; Taguchi & St. Pierre, 2017). These theories all challenge the traditional thoughts and beliefs about the world and are used to “think with” in research and possibly design (Jackson & Mazzei, 2012). This offers us as designers a less structured approach to
design research. This may allow designers to expand the possibilities within design research to gain empathy for our end users and may even open up the possibilities for what design as a whole can be.

Design and qualitative methodology are both moving away from prescriptive methods and models to more “thinking” based methods. Both design and post qualitative inquiry are seeking to move in similar directions and also have similar goals: to “create”. Design is attempting to create products, services, and experiences, while research, in an academic sense, is attempting to create knowledge. The processes might also be more similar than one might think.

**Inquiry Goals**

As a result of this dissertation assemblage, I hope to accomplish the following key goals.

- Explore several of the mindsets, theories, ontologies, and epistemologies that support both design and post qualitative inquiry to draw connections and demonstrate how they are very much related to each other.
- Explore how learning designers are currently understanding their learners.
- Explore how the “posts” might expand what design is/could become to create a “post” approach to design inquiry.

Overall, I would like this dissertation assemblage to expand how learning design and technology, as well as the design field as a whole, look at research and practice. I hope to expand the possibilities of what design might be when we expand the foundational onto-epistemological beliefs of the field.
WEAVING TWO ASSEMBLAGES – OVERLAPPING THE LINES OF FLIGHT

The fields of learning design and post qualitative inquiry followed very similar paths to creation. Both come out of a place of structure and rigidity in the methods used prior. There are many different concepts within design thinking and post qualitative inquiry that lend themselves to be woven together to form one assemblage.

In this plateau, I will attempt to explore several of the key mindsets, theories, ontologies, and epistemologies that emerge from design thinking and post qualitative inquiry. Through this exploration, I hope to draw connections between the fields and demonstrate how they are very much related to each other. These connections might allow us to expand the possibilities of empathy within design as well as design as a whole.

Plugging In

I will be loosely taking up the Deleuzoguattarian concept of plugging in throughout this plateau (Deleuze & Guattari, 1980/1987). Plugging in is a method of plugging one text into another to make the new idea work. In plugging in, one uses theory to read through and think through one’s data and uses data to think with theory (Jackson & Mazzei, 2012, 2013). This process is designed to work against traditional coding methodologies.

This plateau will take this up by leveraging each discipline's writings and thoughts of scholars as data. As I read the design thinking literature, I will think with the post qualitative theories/concepts to expose the connections and vice versa with the literature or data of post qualitative inquiry and “post” theories (Jackson & Mazzei, 2012, 2013). The hope is that this will allow me to explore many paths and connect different theories and
concepts to enable the ideas once thought to live within a particular field to take flight and enter the other assemblage (Deleuze & Guattari, 1980/1987).

**Design**

Many scholars and designers have published human-centered design methods and definitions (Brown, 2008; Carlgren, Rauth, & Elmquist, 2016; Cross, 2011; Johansson-Sköldberg, Woodilla, & Çetinkaya, 2013; Kouprie & Visser, 2009; Lawson, 2005; Leonard & Rayport, 1997; van Boeijen, Daalhuizen, Zijlstra, & van der Schoor, 2014). Design is described by Cross (2011) as an exploratory process, not looking for the ideal solution to a problem but in search of a discovery of something new. Empathy is becoming a key aspect of design through various design practices under various versions of human or user-centered design. Empathic design and design thinking are two of these methodologies taken up to accomplish this human-centered design. This dissertation assemblage will refer to both since I believe that they are interwoven within each other, and as Gray et al. (2015) found in their study, designers don’t follow a single design framework while designing but use what best fits that moment.

Design thinking is becoming a widely used and discussed method in both practice and research. However, there is still discourse in the literature about what design thinking “is” and what it “becomes” in practice (Carlgren et al., 2016). Brown (2009) has been quoted as defining design thinking as a “human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.” Other scholars, like Cross (2006, 2011), use the term design thinking to describe a “designerly way” of thinking.
Empathic design is a way of designing that enables designers to get as close to the user as possible in an attempt to understand their world (Kouprie & Visser, 2009; Leonard & Rayport, 1997). There are several methods that exist to guide designers on how to get these user data. Most are based in ethnographic observations and interviews. Designers then take these empathy data and make design decisions based on what the user wants/needs (Leonard & Rayport, 1997).

(Educational) Design Research

Many educational researchers use “design research” not only to solve real-world problems, but also to create new knowledge to inform the future of education or design (McKenney & Reeves, 2014). According to van den Akker, Gravemeijer, McKenney, and Nieveen (2006), educational design research has a key motive of creating new scientific knowledge alongside the practical application of design.

Throughout this project, I will be referring to design research under the broader definition of design research published by the Design Research Society (2014): “the study of and research into the process of designing in all its many fields.” I will focus on the section that refers to including research into the process of designing. The goal of my project is not to study how designers can use design to create scientific knowledge. I am researching how designers might incorporate (post) qualitative research into their design practice to understand their learners.

Design process.

There are many human-centered design processes in the literature (Brown, 2008, 2009; Kouprie & Visser, 2009; Leonard & Rayport, 1997; Plattner & Meinel, 2016; van
Boeijen et al., 2014). Many of them include the same foundational aspects and general spaces. However, the details of the process vary among various authors and even across publications from the same authors.

Almost all of the design thinking processes are iterative in nature (Blackburn, 2017; Brown, 2008, 2009; Cross, 2011). The design thinking process promoted by the d.school (2013) consists of five “spaces” that the designer moves among throughout the process of their design. Brown (2008, 2009) describes an iterative process of three phases that continually narrow in on the final design. This process leverages the problem solution co-evolution concept developed by Dorst and Cross (2001).

Empathic design processes tend to be even more prescriptive than design thinking methodologies. The Kouprie and Visser (2009) framework for empathic design consists of four steps the designer should navigate within in order to gain empathy for the user. The steps of this framework are: 1) discovery, 2) immersion, 3) connection, and 4) detachment (Kouprie & Visser, 2009, p. 444). This process is visualized in Figure 1 below. This framework requires the designer to enter the user’s world and experience/explore the user’s world to gain personal experience. They then use this experience to connect with the user emotionally.
Other design scholars describe the iterative design process as “ad-hoc and unsystematic” (Cross, 2006, p. 86). Cross (2006) states that many designers are cautious of systematic procedures of design as they have yet to prove valuable in the design process. Gray et al. (2015) studied instructional designers and found that most designers think about different aspects of the design when making decisions instead of following a prescribed design process.

St. Pierre (2011) has argued for a less structured and systematic process for qualitative research. This was the turning point in qualitative methodologies toward the “posts.” The “posts” open up inquiry to a less structured approach. This opening of structure within research might allow us as designers to open up our approach to design to a less structured process for designers to work within. Thinking with theories emerged as a post qualitative method instead of following a prescribed process (Jackson & Mazzei, 2012). This is very similar to the move toward mindsets in design that most designers are already doing naturally (Gray et al., 2015).
Mindsets

Regardless of the process used, all of the authors describe mindsets/abilities that a designer must take up to be successful in human-centered design (Brown, 2008, 2009; Cross, 2011; Dorst, 2011; Lawson, 2005; Lawson & Dorst, 2009). They vary among the literature; however, some of the concepts are consistent across the design thinking literature. A few of the foundational concepts in design thinking consist of: being user-centered or having empathy, problem framing to allow for many possible solutions, being a collaborative experience, embracing uncertainty, and being willing to fail (Brown, 2008, 2009; Carlgren et al., 2016; Köppen & Meinel, 2012; Kouprie & Visser, 2009; Leonard & Rayport, 1997; Tracey & Hutchinson, 2016; van Boeijen et al., 2014).

Designers take up these mindsets to be successful using this open-ended, uncertain, and sometimes uncomfortable process. One of the key challenges designers face in a design thinking space is understanding the nature of the problem opportunity they are attempting to design a solution for (Mattelmäki, Vaajakallio, & Koskinen, 2013). By leveraging these mindsets, designers will create solutions that they could not have imagined without these valuable insights because these may help the designer open up and see the problem in a new light. Several of these are present in the literature, but empathy seems to be the mindset and the foundation of all design processes, especially design thinking.

Empathy.

Empathy as a designer attribute is emerging in the literature as key to successful design (e.g.: Brown, 2008, 2009; Kelley & Kelley, 2013; Köppen & Meinel, 2015; Kouprie & Visser, 2009; Leonard & Rayport, 1997). Designing with empathy allows us to look for
the workarounds that users have created in using a poorly designed product (Leonard & Rayport, 1997). In a study on organizations that take up design thinking, Carlgren et al. (2016) describe empathy as understanding the user and their needs, including needs the learner may not have even realized they had.

Many designers attempt to learn as much as they can about their learners through various methods, including traditional ethnographic and qualitative interviewing methodologies (Brown, 2008; Carlgren et al., 2016; Köppen & Meinel, 2015; Kouprie & Visser, 2009; Leonard & Rayport, 1997; Mattelmäki et al., 2013; Stefaniak & Baaki, 2013). The designs created by designers are for use in real life; therefore, the knowledge used to create them should come from the understanding of the real life of the learners the designs are for (Mattelmäki et al., 2013). Some organizations encourage designers to get to know the users informally first: for example, having a cup of coffee with them before they become a user with a problem (Carlgren et al., 2016). Köppen and Meinel (2012) state that when designers actively think about empathy in their work, they are less likely to have negative outcomes. Design thinkers must reject their own thoughts and perspectives and make the priority the perspectives of their learners (Köppen & Meinel, 2015). Scholars like Kouprie and Visser (2009) and Leonard and Rayport (1997) even provide step-by-step methods to go about empathy research.

Empathy gives us a chance to “be completely other than that which you usually are” (Kolawole, 2014). This allows us to have another perspective on the world in which we are designing. By leveraging this empathy, we are able to understand the context in which our learners live to ensure we are positively impacting their being. Also, by understanding our
learner and designing with empathy, one study showed that we are better able to envision how our learners will intra-act with our learning experiences (Tracey & Hutchinson, 2019).

Designing with, as well as gaining, empathy for end users allows designers a chance to experience and understand who they are designing for and the environment they are in. This is the designer’s chance to explore what in the environment, outside of the end user, might be impacting the design opportunity. The posthumanism or more-than-human concept in the “posts” allows researchers to explore and understand their research beyond a human being and explore the environment and other non-human aspects of their research.

Having empathy is key to both conventional qualitative research as well as post qualitative inquiry. In social science research, scholars who take up qualitative inquiry methods rely on empathy with their participants to understand how things work within the context they are researching (Denzin & Lincoln, 2018). The focus on the personal experience and empathy of their learners to understand the problem is a key factor as to why designers take up qualitative methodology in their design research. As designers, we are, therefore, natural qualitative researchers in our design practice by leveraging the personal experiences of our learners to gain empathy for them, which will enhance our designs.

**Embracing ambiguity.**

Design is an ambiguous process that involves exploring the space between what is and what might be. Many design scholars use the word uncertain to describe design (Ball et al., 2010; Bar-Anan, Wilson, & Gilbert, 2009; Cross, 2011; Lawson, 2005; Tracey & Hutchinson, 2016) while others discuss embracing ambiguity (Brown, 2008; Kelley &
Kelley, 2013). They are all discussing the same concept within design but using slightly different terms to describe it. The core of this concept is about the unknown of what might be in the future, what we know, and what might be a factor unknown to us as designers (Ball et al., 2010; Lane & Maxfield, 2005; Tracey & Hutchinson, 2016). The goal of designers is not to eliminate the uncertainty but to embrace it and to use it as a springboard for innovation.

One type of uncertainty discussed in the literature is the uncertainty of what things mean or semantic uncertainty (Lane & Maxfield, 2005). This is a type of epistemic uncertainty because it discusses our knowledge about something (Ball et al., 2010). This is very similar to Derrida’s theories on différence and deconstruction wherein he discusses that the meanings of words are always in relation to something else, and the meaning of a sign (word) is uncertain on its own (Derrida, 1967/2016; St. Pierre, 2011). Lane and Maxfield (2005) discuss that this allows designers to open up concepts and contexts to reconsider what is real or true based solely on just their interpretations. This allows new meaning to be constructed, and innovation to flourish (Lane & Maxfield, 2005).

Innovation is fostered within what is called ontological uncertainty (Ball et al., 2010; Lane & Maxfield, 2005). Ontological uncertainty is about the “entities” that are present in the world and how they interact in the designer's world and the world of the design (Lane & Maxfield, 2005, p. 10). There are many “post” theories and concepts that discuss this interaction of “entities” and their relation to their “being” or ontology (St. Pierre, 2011). Several of them, assemblage, entanglement, and rhizome, will be discussed later in this plateau.
The field of post qualitative inquiry as a whole is ambiguous. In one paper on the new empiricism, St. Pierre, Jackson, and Mazzei (2016) discuss how the “new new” (new empiricism and new materialism) is unknown and not clear because “it is always being laid out, becoming” (p. 103). This is just like design in that our designs are always still being created or “becoming” something that has yet to be defined.

**Iteration.**

Design is not a straightforward process where there is a start and an end that is sequentially moved through. The process of iteration lets designers validate their ideas or learn from the failures of them (Cross, 2011; Dorst & Cross, 2001). Designs often evolve as we work with them, and we create as we move along the process. Part of the design process is learning from the failure of an idea or learning more from your end user when sharing ideas. The iterations of design allow designers to continuously refine both the design problem and the design solution (Dorst & Cross, 2001). As designers further define either the problem or the solution, we iterate on the other to come to a better solution for our end user.

Brown (2008) argues that designers need to have the ability to see all aspects of a solution. Designers should not rely on an analytical process that leads to choices or single solutions but that goes beyond that to “dramatically improve on existing alternatives” (Brown, 2008, p. 3). By iterating on ideas, we are opening up the possibilities to improve on what we already know, have, and believe about our design and the problem we are designing for. Iterations challenge our assumptions about the design we have created by
receiving feedback from our end user. This is similar to post qualitative inquiry in that we are opening up the possibilities as we are inquiring in a “post” world (St. Pierre, 2011).

**Post Qualitative Inquiry**

One condition for successful innovation and design is open attitudes and allowing for many ideas to emerge/co-exist (Martin, 2014; Reid & De Brentani, 2004; Reid, de Brentani, & Kleinschmidt, 2014). To reach this condition, design scholars have rejected systematic design processes in favor of less structured and open-ended methodologies (Lawson, 2005; Smith, K. M. & Boling, 2009). As in learning design, some qualitative methodologists found the prescriptive and closed approach to scientific-based qualitative (SBR) research constricting (Lather & St. Pierre, 2013; St. Pierre, 2011). Out of this came the development of post qualitative research or post qualitative inquiry. There are two seminal publications that signaled the start of this movement. The first is a book chapter by St. Pierre (2011) in *The SAGE Handbook of Qualitative Research*, which laid the foundation for this movement. The second was a special issue of the International Journal of Qualitative Studies in Education published in 2013 with an introduction by Patti Lather and Elizabeth Adams St. Pierre that further opened up the possibly of what “post-qualitative research” might be, become, do, and mean, and how it might be done (Lather & St. Pierre, 2013; Nordstrom & Ulmer, 2017).

To fully understand, think, and inquire in the post qualitative world, one must deeply understand the “post” theories. St. Pierre (2011) believes that researchers who take up these “post” theories must read and study them prior to being able to think with them. This section is not a comprehensive review of the “posts” since much of it is still being
explored by scholars. What I have attempted to do is provide an overview of the theories and concepts needed to understand the connections between design and the posts. Inquiry, like design, is a collaborative activity as scholars build up, challenge, and re-conceptualize each other’s ideas. Because of this, there are many interconnected, and maybe contradictory, thoughts and ideas in the literature.

Many post qualitative scholars are working to a “future yet-to-come” (Nordstrom & Ulmer, 2017). This working toward the future leaves the field open to uncertainty, and most post qualitative scholars claim that the unstable nature of the field is desirable (St. Pierre, 2011). The field is an ever-evolving body of work that continues to develop rapidly (Nordstrom & Ulmer, 2017). Many of the pioneers in the field started with a critique of the qualitative methodology they were teaching and with which they were mentoring doctoral students (St. Pierre, 2011, p. 611).

Post qualitative inquiry is a departure from the positivist, humanist, and perspective methodologies qualitative research has become since the enlightenment (Lather & St. Pierre, 2013). Much of post qualitative inquiry is based in postmodern, poststructural, and posthuman theories and how we might “think with” or through them in our research and data (Jackson & Mazzei, 2012). The concept of thinking with theory within post qualitative inquiry involves looking at your “data” and thinking through it with a “post” theory as your lens (Jackson & Mazzei, 2012). The intimate relationship with the theory or concept you are using in your inquiry is key to being able to make sense of it without the traditional qualitative methods. One key difference between standard interpretive qualitative research and post qualitative inquiry is that in post qualitative inquiry, we do not code data since
this is against the concept of différance by assigning a closed off meaning to a sign in the form of a code (St. Pierre, 2011).

The “posts”

Many of the “post” theories, epistemologies, and ontologies are based on postmodernism and poststructuralism (St. Pierre, 2011). Many of these theories critique structural formation. The “posts” began a “radical break with the humanist, modernist, imperialist, representationalist, objectivist, rationalist, epistemological, ontological, and methodological assumptions of the Western Enlightenment thought and practice” (St. Pierre, 2011, p. 615). This is a “turn” in what typically is thought of as knowledge (epistemology), being (ontology), and what is a human being, individual, self, and a person. Postmodern theories attempt to diminish the distinction between epistemology and ontology altogether (St. Pierre, 2011). Barad (2007) uses the term onto-epistemology to describe the entanglement of being and knowing.

Some of the basis of post qualitative inquiry comes from the deconstruction of what St. Pierre (2011) calls “conventional humanist qualitative methodology,” leveraging postmodern theories to do so. It is a move from the “science is this; science is not that” ontologies of Plato to taking up the Deleuze logic of “and” ontologies where “this and this and this and this…” (St. Pierre, 2011, p. 613). Using the “and” logic, post qualitative inquiry is opening up research and inquiry to many possibilities.

The “posts” discuss the epistemological and ontological “turn” and disrupt the distinction between the two (St. Pierre, 2011). This is based in the desire of post qualitative inquiry, and specifically posthumanism, for an assemblage of “knowledge” and “being.”
The onto-epistemological turn toward posthumanism in the “posts” discusses that humans are not the only possible knowing subjects in research (Ulmer, 2017). The deconstruction of humanism discusses how once one takes up the assemblage (Deleuze & Guattari, 1980/1987) and entanglement (Barad, 2007), the structures of humanism collapse (St. Pierre, 2011). Assemblages are “entities ranging from atoms and molecules to biological organisms, species, and ecosystems [which] may be usefully treated as assemblages and therefore as entities that are products of historical processes” (DeLanda, 2006, p. 3). Deleuze and Guattari (1980/1987) would argue that “the human” is an assemblage the same as any other more-than-human entity or, as they describe it, bodies without organs.

Once the concept of “the human” collapses due to the assemblage, all other structures in our typical onto-epistemological philosophies fail because humans are at the center of them (St. Pierre, 2011). The opening up to other possible onto-epistemological agents allows extended possibilities in research (Ulmer, 2017). Posthuman research is another departure from scientific research and is less concerned with phenomena and more interested in knowledge, what it is, and how it is created (Ulmer, 2017). The interaction between the more-than-human world, the non-human, and the human world along space and time are described in Barad’s entanglement (Ulmer, 2017). Interpretive or critical humanist research might consider the more-than-human world in their research, but the human or person is always at the center; however, scholars who take up posthuman research put the non-human at an equal level or may even put the non-human as the focus (Ulmer, 2017).
While designers may not take up a posthuman approach, it is important to understand the foundations of the onto-epistemological turn that is happening in post qualitative inquiry as a whole. Similar to designers who consider organizations through systems theory, post qualitative scholars are considering how humans might not be the only beings capable of holding knowledge.

Many of these “post” theories can be applicable to designers in their design inquiry work. These theories may help designers look at their design contexts, their learners, and the overall process of design differently. If designers take up these theories in their design practice, I am hoping they may have an expanded view of design, and their way of design might change.

**Post Theorists**

Many scholars in the post qualitative literature move between writing and thinking about specific theories (e.g., assemblage, entanglement, and différance) and thinking using theorists (e.g., Derrida, Deleuze, Foucault, and Barad) (Jackson & Mazzei, 2012). Many of these theories are interwoven in scholarly work today, as evident by the discussions above. To attempt to detangle the assemblage that is the post theories would go against its very nature. Therefore, I have attempted to summarize the key theorists' work and the theories that they originated. However, like a rhizome, every point is connected to any other, so there may be some interwoven sections to assist in the understanding of these complex concepts that many scholars take years attempting to master.
**Deleuze and Guattari.**

The theory of the assemblage by Deleuze and Guattari (1980/1987) attempts to decenter the human from the humanism of the enlightenment. Individualization is a concept of enlightenment humanism in which the human being is an epistemological subject separate from everything else. The assemblage is one of the key components of the posthuman movement. It redefines how we think of an individual, an identity, and a person, challenging the principle of individualization. Postmodernism looks to de-individualize the human as separate from everything else through the assemblage and the entanglement.

An assemblage is a new way of thinking about the idea of a human being. Deleuze (1990/1995, p. 141) describes it as a collection of events “capable of ousting the verb ‘to be’ and its attributes.” An assemblage may contain experiences of humans, more-than-humans, non-humans, and bodies without organs (BoW) as well as time, space, and other things that have yet to be discovered entangled within each other. They describe the assemblage as a *rhizome* (Deleuze & Guattari, 1980/1987).

A *rhizome* does not have a beginning or an end, an origin or destination, but always has a middle (Deleuze & Guattari, 1980/1987). The rhizome helps explain the interconnectedness of assemblages and how they cannot be separated. Any point of a rhizome can, and must, be connected to any other point within the rhizome (St. Pierre, 2011). One can enter a rhizome at any point and get to any other point in the rhizome and back again (Deleuze & Guattari, 1980/1987).

The assemblage, along with entanglement, allows us to think of inquiry beyond the sovereign knowing person as the only epistemological agent or knowledge creator and
holder. The Deleuzoguattarian concept of the assemblage force us to reconsider the concept of “I” as a humanist subject (Mazzei, 2016). “I” or “self” implies that the human being is an individualistic concept that is detachable and independent from matter, time, space, and the entanglement of the assemblage. However, Deleuze and Guattari (1980/1987) explain that the goal is not to eliminate “I” but to discover a time “where it is no longer of any importance whether one says I” (p. 3).

In learning design, we create learning experiences that we hope will improve the knowledge or performance of our learners. Taking up the assemblage within our design will allow us to think of the greater knowledge or experiences of those for whom we design. We are hoping to add an experience that will benefit the assemblage of our audience. By creating learning experiences, we are allowing the assemblage to grow in multiplicity within the rhizome.

This is different from traditional learning design in that in the rhizome, there is not a hierarchal “system” of beings. In a rhizome, everything is always becoming and on a single plane of creation. In traditional ISD, we look at the “system” and how we might impact the supra and subsystems; in a rhizome, it is all always becoming. This calls us to follow the lines of flight to explore the assemblage within which we hope to design.

**Derrida.**

Deconstruction is a concept that Derrida developed to critique the hierarchical and binary notion of language (Derrida, 1967/2016). Différance is the theoretical foundation of deconstruction. Derrida (1967/2016) discusses it as the meaning of any word or “signifier” cannot be secure or present. The goal is to remove brute meaning from words, typically
referred to as *signs* by scholars who take up Derrida. However, to define *différance* would be to go against Derrida’s point of it. Meaning is constantly being deferred because the sign has no essential meaning that holds across all instances of its use and through time. This is the essence of *différance*; the meanings of a sign differ and are deferred. If we remove everything but a sign, it would have no meaning (Nietzsche, as cited in St. Pierre, 2011). *Différance* is generally used to support deconstruction from a literary stance. This is very similar to looking at “I” or “self” in assemblage because human beings cannot be a singular individual separate from the entanglement; neither can words. Taking up *différance* in design can have many benefits. When collecting data about a learner, design opportunity, or the environment in which a design is for, we need to remember that an action, word, policy, etc. can have multiple meetings and might not represent what we think it does because we do not have the entire context in which it is interacting.

Derrida stated in an interview that a key to deconstruction is that one should not assume things that are conditioned by history, institutions, or society (Ziering & Dick, 2002). Deconstruction is also not an operation that one “does” after or outside of the work, but it is already active in the work (Ziering & Dick, 2002). This could be key to learning design because our job is to break down the meaning for learners. We must also be careful not to assume a shared meaning or that things are “conditioned” within the environment for which we are creating learning. These “conditions” or signs that we use in learning might be industry jargon, acronyms, or other key things that a SME or designer might be assuming meaning for which our learners do not have.
Deconstruction has also been described as working within and against structures (Derrida, 1967/2016). In deconstruction, we are not rejecting structures but are opening them up to explore opportunities within and outside of them. As a part of this deconstruction, Derrida talks about deconstructing binary pairs (self/other, subject/object, human/non-human, identify/différance). One of the signs in the pair is in opposition to the other, and the primary depends on the other for meaning. Deconstruction is very relatable to Smith, K. M. and Boling (2009) proposing less structured design structures. Designers may work within some or many existing design structures but also may work against, or outside of, them to better understand and design for the world they are in.

**Barad.**

Within quantum physics, Barad (2007) proposes the concepts of entanglement and intra-action. The entanglement proposes that matter within the universe is effected by the actions of another no matter how far apart by distance or time (St. Pierre, 2011). Entanglement also argues that all matter has meaning and, therefore. “epistemological knowledge.” Within quantum physics, space-time is “dynamic, fractured, porous, paradoxical, and non-individual” (St. Pierre, 2011, p. 619). This allows one to consider relationships in space-time to exist “simultaneously, rhizomatically and overlapping, interfering with each other” (St. Pierre, 2011, p. 3).

This entanglement allows us to see how things seemingly unrelated impact one another. This is key in design as we are working within complex organizations that have many moving and interacting parts. We need to be cautious that what we impact at one point in the organization will not negatively impact the rest of the organization. Because
the entanglement functions within a rhizome, the multiplicity of a positive or negative impact to the organization will be multiplied in the organization due to the multiplicity principle of rhizomes.

A designer who is thinking with the entanglement or intra-action might consider how things completely outside of the learning experience, organization, or learner we are attempting to design for might be impacted within time-space mattering unaware to us at this time. This concept also might cause one to be aware of how the pure process of doing design work might cause a ripple in the assemblage they are attempting to work within without even creating a learning experience.

**Weaving It Together**

This section outlines some key aspects of both design and post qualitative inquiry. I am sure that there are many aspects that have yet to be uncovered and, with time and further scholarly work in design and in the posts, will be exposed. I have highlighted some of the key connections that allow designers to take up post qualitative inquiry as a design method.

**Uncertainty**

Both design and post qualitative research have a key foundational aspect of their literature that discusses the uncertainty and ever-changing nature of their work (e.g. St. Pierre, 2011; Tracey & Hutchinson, 2016). As St. Pierre et al. (2016) and Nordstrom and Ulmer (2017) discuss, post qualitative inquiry is still being formed and becoming. This makes the study of post qualitative inquiry uncertainty and potentially uncomfortable. As design literature shows us, this uncertainty can spark creativity (Ball et al., 2010; Bar-Anan
et al., 2009; Lane & Maxfield, 2005; Tracey & Hutchinson, 2016). With designers being able to embrace the ambiguous and think through designs without clear direction or understanding, they should be comfortable with the uncertain nature of post qualitative inquiry (Cross, 2011; Lawson, 2005).

Creation

Much of design, as well as post qualitative inquiry, is about creating. Designers are, by nature, creators of goods, services, and experiences. Post qualitative scholars and researchers who take up post qualitative inquiry create methodologies within the context of their studies (Cross, 2011; Dorst & Cross, 2001; Koro-Ljungberg, 2015; Nordstrom & Ulmer, 2017; St. Pierre et al., 2016). Researchers taking up post qualitative methods create or design their methodologies as they need to in order to further their research and “think with” the theories they have taken up (Jackson & Mazzei, 2012; St. Pierre et al., 2016). In the new empiricism and new materialism, we must experiment and create the future because it is still being formed, becoming (St. Pierre et al., 2016). With this new becoming, post qualitative researchers and scholars are creating the future they need. If we as designers take up this and are creating methodologies we need as we need them, then we might always have the design process we need at the time we need it to best understand our learners similarly to how post qualitative scholars create new methodologies to understand their participants (Nordstrom & Ulmer, 2017; St. Pierre et al., 2016).

Expanded Perspectives

Several “post” theories and post qualitative scholars have expanded or opened up the possibilities of what inquiry/thought might be or become, what a research participant
and data might be, and what the empirical and material worlds might be, or, as St. Pierre (2019) describes it, a plane of “not yet” within the ontology on immanence (e.g. Deleuze & Guattari, 1980/1987; Derrida & Caputo, 1997; Jackson & Mazzei, 2018; Lather & St. Pierre, 2013; Nordstrom & Ulmer, 2017). Design, at its core, is about expanding what is into what might be (e.g. Brown, 2008; Cross, 2011; Kelley & Kelley, 2013). The foundational design question starts with “how might we…,” which opens up the world of possibilities for a designer. If designers take up post qualitative inquiry, they might be able to create the “not yet” or what might be and change the performance of their end users.

**Opening Prescriptive Structures and Methods**

Design and post qualitative inquiry have both called for less prescriptive structures and methods (Gray et al., 2015; Koro-Ljungberg, 2015; Lather & St. Pierre, 2013; Nordstrom & Ulmer, 2017; Smith, K. M. & Boling, 2009; St. Pierre, 2011). Both fields found structured methods to be too constricting to the generation of ideas and understanding the world around us. The “posts” use deconstruction and différance to push against representational structures to binaries to explore instead of close down (Derrida, 1967/2016; Derrida & Caputo, 1997). Ideation and the iterative design process allow designers to have many open-ended ideas and explore them to come to a conclusion. This is similar to inquiry in the “new new” of the new empiricism and new materialism, wherein researchers are experimenting to determine the future of inquiry (e.g. Cross, 2011; Dorst & Cross, 2001; Koro-Ljungberg, 2015; St. Pierre et al., 2016). By taking up design and post qualitative together, designers and researchers may have the perfect opportunity to be innovative in what we create, how we do it, and what our fields might become.
By taking up post qualitative inquiry in design, we are able to explore what design is, how it is being done, and what it can become. I think that in a post qualitative design world, we will be able to have infinite possibilities of end users, subject matter experts, data to inform our designs, and processes to design with.
LINES OF FLIGHT EXPLORED

This project involved many moving parts to be able to accomplish my last two goals outlined in the “path to the opening” plateau. As a post qualitative researcher, I allowed the needs of the project and the moment to uncover the methodologies or tools I used as I needed to leverage them. Throughout the course of this project, I changed courses to explore what the data was saying I needed to unpack.

Post Qualitative Design Inquiry (PQDI)

As a part of the dissertation project, I hoped to create a “post qualitative design inquiry” methodology. I used an ever-emerging form of this methodology myself through the course of this inquiry project. As a part of the development of this form of design inquiry, I hoped to gain further empathy for the designer participants since, in this project, they are the end users. PQDI’s main goal is to allow designers to gain an expanded sense of empathy for their end user, and as the designer/researcher in this project, I explored how this might work throughout the exploration of this space/project/assemblage.

I hope that PQDI might allow designers to explore the world and their learners through a postmodern and poststructural viewpoint. This might allow them to see their learners within the assemblage of the organization and world. PQDI, if fully realized, could open up what designers could “empathize” with to explore the more-than-human. While the posthuman aspects of PQDI were out of scope for this project, I still hope to explore these in the future.

I hoped to uncover what PQDI might be/come by exploring/testing/taking it up through the creation of it. A foundation of post qualitative inquiry is to let the data/method
uncover/expose itself as you navigate the assemblage you are exploring (Koro-Ljungberg, 2015; Nordstrom & Ulmer, 2017; St. Pierre, 2011). Therefore, by allowing PQDI to develop itself as I worked to uncover what it might be/come, I am allowing the data/method to speak to me (Koro-Ljungberg & MacLure, 2013; Nordstrom & Ulmer, 2017). In this portion of the project, and all post qualitative work, data consists of many things and expanded/evolved as the project unfolded. Some examples of what the data were in this project are:

- Literature
- Ideas/knowledge from designers/design scholars
- Ideas/knowledge from (post) qualitative scholars
- Prior designs that have been created
- Designs yet to be created

While PQDI is still evolving after this project, I started off by exploring what learning designers are currently doing to understand their learners by taking up a post qualitative approach. I started with reflections on what PQDI might be/come, which led me to determine that I was missing a chunk of data: “What is happening now?”. To really be able to create a PQDI approach, I needed to understand what learning designers are currently doing to understand who their learners are, and what, if anything, they are doing for research. I used this as the first step in the creation of PQDI. As Koro-Ljungberg (2015) states, “research is always unfinished and thus calls for ongoing attention and future work from the scholars” (p. 46). Therefore, I plan to continue working on the development of PQDI in my future scholarship.
Participants/Designers

I was able to talk with eight instructional designers throughout this project. These designers varied in experience and background. I was able to recruit these participants through my network of designer colleagues who knew designers that would be open to sharing their experiences with learner research.

Participant 1

Participant one is currently a senior instructional designer within health care focused on the design of training for IT systems. Participant one holds a master’s degree in instructional design. She has extensive experience in both training delivery and instructional design. She also has worked in banking and the criminal justice system.

Participant 2

Participant two has extensive instructional design experience as both an instructional design consultant and a faculty member. She holds a Ph.D. in Instructional Design and teaches instructional design at a university. In addition to her work as a professor and consultant, she also runs a nonprofit aimed at providing professional development to instructional designers through service learning. These service-learning projects are currently focused on adult learners receiving their GEDs. These projects focus on designing better instruction for these learners as well as assisting the teachers working with these students.

Participant 3

Participant three currently also has extensive nonprofit experience. She has worked with several nonprofit organizations. She has also worked as a designer on several large
grants and design consulting projects. She also has a Master’s in Training and Development.

**Participant 4**

Participant four works in higher education as a program coordinator and faculty member for a non-credit program. She is currently a Ph.D. student in instructional design. Prior to her current role, she was a subject matter expert in her field and did not work in education or instructional design.

**Participant 5**

Participant five has extensive learning design experience. She has a Ph.D. in Learning Design and Technology and teaches at both the graduate and undergraduate levels. She is currently working in the automotive industry as a designer but also has experience in health care and banking.

**Participant 6**

Participant six is newer to instructional design. He recently completed his master’s degree in instructional design. His background is in fundraising and donor relations.

**Participant 7**

Participant seven is also new to instructional design. She is in the process of finishing her master’s degree in the field. She currently works in alumni relations in higher education.
Participant 8

Participant eight has been in training and development for 30 years. He is currently a training manager for an automotive manufacturer. He has been with his current organization for over 20 years. He is currently pursuing his Ph.D. in learning design.

Exploration of Learning about Learners

Throughout the process of exploring what designers do to understand their learners, I took up an unstructured/semi-structured interview process. I would say it was more unstructured than semi-structured since I really only had one main question. My main question was, “Tell me about a project where you had to learn about your learners in order to be able to complete the design project.” The rest of the interview was just a conversation on what the designers had done in the past and further exploring those projects. Many of the conversations evolved into how these projects and learning more about their learners changed how they design and who they are holistically as a designer.

These conversations lasted from 30-60 minutes, depending on the depth in which we were able to explore. Some of the designers had more projects and/or more in-depth experience with learner research. With these designers, I was able to have very in-depth conversations to explore their understanding/thoughts on understanding learners.

Working/Interacting with Data

I needed to work/interact with data involved in my project to come to insights on my inquiry goals. To do this, I read through multiple sets of data in the iterative approach toward the creation and evolution of insights explored in the “The Designer/Researcher”
plateau. In this project, I was reading these data using a thinking with theory and a post qualitative approach to data. I will explore thinking with theory later in this section.

Data

Data in the “posts” are theorized in new ways. In this type of inquiry, “matter matters,” and therefore all data have meaning, being, and agential realism or, as Koro-Ljungberg (2015) describes it, “data wants” (Barad, 2007; Koro-Ljungberg & MacLure, 2013). Data in the “posts” want, desire, and live, and, most importantly, they have ontological status (Koro-Ljungberg & MacLure, 2013). Working within this new conceptualization of data requires research to work differently when interacting with data. The relationship between researchers and data is changed. We, as researchers, no longer control and analyze data. Therefore, “what we do with ‘data’ once we have ‘access’ to it happens often unexpectedly, in unpredictable and entangled ways” (Koro-Ljungberg, 2015, p. 48). Data and analysis become multiple, and are alive and ever-changing (Koro-Ljungberg, 2015).

In the new materialism and new empiricism, data are not coded, themed, or assigned a brute meaning because doing so assumes that data are static and exist only to be collected and analyzed (Lather & St. Pierre, 2013; St. Pierre & Jackson, 2014). Instead of data being coded, we as researchers interact with data and read/explore it looking for data to provide meaning, looking to what these data want. (Koro-Ljungberg, 2015; Koro-Ljungberg & MacLure, 2013; Koro-Ljungberg, MacLure, & Ulmer, 2018; St. Pierre & Jackson, 2014).
Working in a post qualitative manner with data is about allowing these data to have agency and explore what they need/want. Interacting with data in the posts is about opening it up instead of categorizing it into themes or codes. St. Pierre and Jackson (2014) describe what they see is the key difference in post qualitative data.

We argue that coding data in that way is thinkable and doable only in a Cartesian ontological realism that assumes data exist out there somewhere in the real world to be found, collected, and coded using the “Cartesian principle of breaking down the difficulty into as many parts as may be necessary for finding the solution” (Derrida, 1967/1978, p. 287). (p. 715)

Taking up this new way of thinking about data required me to interact with data in an ever-evolving way throughout the project. When working with these data involved in the project, I explored what these “data wants” in an iterative approach. To work with these data, I needed to leverage some approaches that already exist, such as “thinking with theory.” I also let these data wash over me as meaning emerged as I explored these “data wants.” This is similar to how St. Pierre (2015) asks us to read theory. St. Pierre and Jackson (2014) argue that written texts and participant interviews should both be considered equally as data, so why would we not treat the reading of these texts/transcripts equally?

**Thinking with Theory**

One approach to interact with data I took up in my project was “thinking with theory” (Jackson & Mazzei, 2012). Thinking with theory is a major way scholars take up working/thinking with this expanded view of data (Jackson & Mazzei, 2012). When scholars think with theory, it allows data and knowledge to be “opened up and proliferated rather than foreclosed and simplified” (Jackson & Mazzei, 2012, p. vii). Thinking with theory allowed me to look at these data through multiple theoretical perspectives.
The “creators” of thinking with theory, Jackson and Mazzei (2018), state “there is no formula for thinking with theory,” therefore, it is something that I explored through trial and error (p. 717). This allowed me to find a way of thinking with theory that met the needs and wants of these data (Jackson & Mazzei, 2012, 2018; Koro-Ljungberg, 2015). Thinking with theory allows us to break away from “pursuing the patterns in our data through coding” and allows us to explore what happens within data that becomes exposed when we plug data into theory and theory into data (Jackson & Mazzei, 2012, p. 34).

As with any post qualitative inquiry project, this required me to read these data from multiple perspectives using multiple theories and theorists. Each theory allowed me to examine what these “data wants” in new ways (Jackson & Mazzei, 2012; Koro-Ljungberg, 2015). Theoretically informed research, like post qualitative inquiry, doesn’t use theory as the “answer” but as a way to unlock insights these data are looking to share.

In this project, I chose to take up two main theorists, Deleuze/Deleuze with Guattari and Derrida. The Deleuzian theories I took up were the rhizome and the event (Deleuze & Guattari, 1980/1987; Williams, 2014). I also took up deconstruction (and différance) by Derrida (Derrida, 1982, 1967/2016; Derrida & Caputo, 1997). I didn’t start using the event until after my data was collected. I was thinking through it in rhizomes and kept coming across this “thing” that was happening where lines of flight were coming together and then breaking off in new ways. I then looked to the event to read through this data to fully understand what was occurring.

To do this, I read these data not looking to “validate” or support the theories, but where these theories allowed the data to speak. I also was plugging these data into these
theories to help bring these theories into a new light or perspective. One example was when I was thinking with deconstruction; I saw the moment one of the designers started to deconstruct their content. If I had just been using standard coding of data, I may have just seen this as content collection. But reading these data through deconstruction, I was able to see the moment where things deconstructed.
THE DESIGNER/RESEARCHER (INSIGHTS/FINDINGS)

Throughout the course of my conversations with designers, I heard many different stories of insights that lead to changes in the designs and designers. Through this plateau, I will explore what emerged from these conversations as key insights/findings. One of the key insights that came out of these data was key to moving forward with a post qualitative approach to design inquiry. From these conversations, I was starting to see in more direct terms how research and design were very much interrelated. Similarly, to how scholars wouldn’t publish a paper without doing some type of research, whether that is literature research and/or data collection of some type, designers who conduct research of some sort found they had better products.

I talked with both experienced and novice designers. A couple of the designers I talked to were novice designers who were too new in the field to have demonstrated a firm understanding of the processes they were using. We will discuss how these novice designers might evolve later in this plateau. When speaking to the experienced designers, there was a clear distinction between the two groups of designers. While designers may exhibit traits of both groups, they primarily worked with a foundation in one of the groups.

One of the key insights that emerged from these data was the two types of design research in learning design, one being content focused research and the other being learner focused research. I do not want to say there is a binary between the two because most of the designers I talked with explored both concepts; however, they did have a focus.

While both groups do “research” prior to their learning projects, they do it very differently. While I initially set out thinking that one could only do “design research” on
the learners themselves, I found that all designers do some type of research. They are just using different “methodologies” or “theories” to do said research, and their “participants” were different. Because most of the designers I talked to do some type of research, I am going to refer to them as designer/researchers moving forward in this project.

One of the goals of this project was to explore how designers might take up post qualitative inquiry to be better human-centered designers. Throughout the course of my conversations with the designer/researchers one thing that emerged through these data was many instructional designers were not taught the basics of qualitative inquiry practices, and if they were, they did not mention this training.

**Content Centered Design Research**

While many learning designers are good at standard chunking and sequencing of content, there is skill and research involved in ensuring it is the right content. The content focused design researcher tended to focus on deconstructing and understanding the content and how it applies to the specific learning scenario they are encountering (Derrida & Caputo, 1997). One of the key things that set these designers apart from the learner focused researcher was who they are working with. The content centered designer/researcher tended to focus their inquiry practices on the subject matter experts (SMEs).

Designer/researcher eight discussed how he is successful because of the relationships he had built with the subject matter experts and operational leaders. His knowledge of his learners really focused on demographics and described his learners based on job role instead of learner personas.

So, the individual learners who they are from a job description doesn't change. But who they are as people, right, and the demographics around those
people has changed. … You saw the demographic of someone who's been in the automotive business for 20-25 years, they were set in their way. These, they knew everything, and you couldn't teach them anything.

What we're finding today is that there's a higher turnover of employees, and you're seeing younger people get into that job role in the dealership. … I mean, just because of time, we're seeing turnover, right, and there are new people coming into positions. So different skill sets, different expectation for learning, different ways to learn. They don't necessarily want to sit in the classroom.

For a project he is currently working on, he discussed understanding the role and specifically the job description as being a key success criterion. While he was describing the project, he talked about understanding how a new reorganization effort was going to impact the tasks staff were going to have to complete. He was describing breaking down the prior job tasks and understanding the new tasks. He then wrote learning goals and designed content around those goals. Later in the project, we will discuss how a learner focused designer/researcher was working on a similar project where a new product was going to impact the job tasks of staff and the different approach she took.

When we discussed his learners, he mentioned that his team is working on more iterative design practices, and some of the feedback comes from pilot learners. Throughout our conversation, his discussion of learners was usually very much removed from the front end of design processes. He didn’t include learners much until the “testing” phase of design in the examples he provided me. Overall, he relied heavily on his own experience of “what people do” and what they needed to know. Very little of our discussion was on how the learning was going to be delivered or the overall experience itself; it was very content focused.
Participant four also was a content focused designer. She really focused on content research, as well. She has prior experience in her field and therefore has some subject matter expertise. However, she did state she has been out of practice for a while, so she does rely heavily on SMEs. She discussed how she is currently partnering with a particular SME to think through new ideas, content, and activities.

She did discuss how she has a base understanding of her learners from her work in the field, which she uses to frame her designs; however, she doesn’t talk to or get feedback from her learners prior to delivering the learning experience. We did discuss how she receives and reviews feedback post class, but she stated it usually didn’t change the design substantially.

**Post Qualitative Content Inquiry**

Both of the content focused designer/researchers I talked to were focused on breaking down the content and learning needs into learning objectives. They are then focused on how to break down and determine the best way to present content to meet these learning objectives. This is very similar to how someone might complete a deconstruction of a text or concept (Derrida, 1967/2016).

Participant eight discussed the project where the organization was combining job roles. He shared how he understood the old roles, so he met with operational leaders to understand the new expectations. He discussed how they were breaking down, or deconstructing, the new expectations and how the new context might change how they did these tasks.
A literary/scholarly deconstructionist would take a look at a text/data and break apart its meaning. They would examine how what someone has written might mean something completely different or be ambiguous if looked at too closely. They would then explore all of the possible meanings of the text and explore/deconstruct those meanings to examine the uses of language.

The designer/researchers I talked to do not deconstruct learning content to the point of its being meaningless as a true deconstructionist might. They do, however, deconstruct the content to bring more meaning to the material. When designer/researcher (participant) four works on a new course, she partners with SMEs and builds learning outcomes. These then help create materials that help the facilitator explore the meaning of the content being discussed. Content focused designer/researchers see their jobs as breaking down or deconstructing what SMEs provide and exploring the possible ways to demonstrate this learning material. She discussed, “I start with what is it that I want them to learn. So, I start with objectives. And I try and lay out a framework. So, I'll take objectives and try to break it out into chunks into the five weeks. And then I start filling in material and topics.” She also discussed building facilitator guides and activities to help the facilitator deliver the content.

**Learner Focused Design Research**

Several of the designer/researchers I talked with were focused on the learner. These designer/researchers typically created personas or empathy maps as a key component of their design work. While these designer/researchers talked about subject matter experts, it was typically after they had already completed in-depth research and analysis of their
learners. Many of the learning focused designer/researchers discussed focusing on understanding the learners as people. Designer/researcher five described it as understanding “WHO the learners were instead of WHAT the learners were.” She described learner focused design as being able to bring the learners’ voices to the table.

For example, participant three described a project where her learners were being hired to clean a brand new mall in Dubai. If she didn’t understand information about her learners’ personal lives, the learning experience many have looked very different than it ended up becoming.

I found out that these are 18-year-old kids, a lot of them, who are, who have left their family there alone in a country where they are working. They don't even know what some, or most, of these cleaning tools are. They don't know what a toilet looks like.

All of these designer/researchers focused on designing for the learner, not the content. Designer/researcher two mentioned that it is about understanding “[w]ho are these learners… and how does that impact the learning experiences we're doing?” These types of designer/researchers are focused on understanding the learner and going through iterations of learner discovery to narrow down the audience. These designer/researchers also refer to the learner throughout the design process, as described by one of the designer/researchers.

[T]ake a step back …. Does that resonate with who you selected as your persona or the composite persona you put together? And where may you be falling short? Where could you make some enhancements that would make it more applicable?

While all four of the learner focused designer/researchers created some sort of learner persona or empathy map, how they gathered this information varied. Two of the
designer/researchers gathered this information from the SMEs, and the other two did learner inquiry.

**Subject Matter Expert Learner Inquiry**

The designer/researchers that used SMEs to understand their learners had very different relationships with their SMEs than the content focused designer/researchers. These learner focused SME designer/researchers used the SME as learner experts, not content experts. They were providing insights on who these learners were and not just what content the learners needed to know.

Designer/researcher two described how she reached out to SMEs to understand her learners.

> We reached out to a broad network of adult educators. We use those as our subject matter experts. We surveyed them just general, who are your learners? what is? … what is the setting you teach in? And then how does that kind of circle back to how that impacts the learner and their experiences. So we started out with just kind of general questionnaires, and then we just did some pretty in-depth focus groups. I guess it’s probably the best way to put it.

> We developed a set of personas. And we didn't just develop one set. We developed a set, and then we did through an iterative process, we would try it, test it, try it again, test it with a different set of subject matter experts, which was incredibly telling because this is such a diverse learner population. However you focus your lens, you're going to get a slightly better, different view, and so through creating these, we've been able to try to pick out the most important kind of variables associated with this learner population.

> Kind of what comes up a lot is that these classrooms tend to be like one-room schoolhouses. So it's inherent in this context; you're going to have various levels of learners… they may have children they may not; they may have been incarcerated, they may have had a drug addiction. And so, nobody has all of those characteristics, but those are all things. And those are, the way we were able to really get our heads around that is, like I said, really spending time with the subject matter experts.
Both of the designer/researchers in this group discussed that they wished they could have spoken directly to the learners but couldn’t due to constraints on access to these learners. Designer/researcher two described how there are logistical issues with gaining access to the learners, but she is working on finding ways to gain that access. Designer/researcher three, as stated above, had learners that didn’t speak English and were immigrating to a new country that she was not native to, and that made it hard to access learners.

**Learner Inquiry**

The other two learner centered designer/researchers were already doing somewhat formal learner research. One of them, designer/researcher one, did ethnographic inquiry and interviews for one of her projects. This project was introducing a new way the physicians, nurses (RNs), and medical assistants (MAs) document care for patients in the wound clinic. She said:

I don't really know a lot about these users; I don't really know a lot about how they do things, so I'm going to go spend some time there. So, I spent several hours in the clinic in the room with the MAs as they were rooming [taking vital signs] wound patients. First of all, it gave me a tremendous amount of appreciation and respect for how amazing our staff is with people.

In the few hours she spent in the clinic with these staff, she gained a ton of empathy for these learners and used that in her designs. She later discussed how seeing the staff work directly with these patients that were “in horrible pain, [and] they are just absolutely miserable” completely changed how she designed for this project. She recognized that they couldn’t be flipping through paper documentation because they needed to focus on these patients. She said, “They don't have time to be searching for tip sheets and read a 27-page
job aid, so that that kind of stuck with me. So that was hugely informative, and I got to see how they do things.” She was doing ethnographic inquiry and even post qualitative inquiry with these learners, and that informed her design decisions.

Designer/researcher five is also doing learner/design inquiry. She is actually working on a large organizational initiative to bring design thinking to her organization, an automotive manufacturer.

To do this, she has done interviews and observations with learners to understand their pain points in relation to her project. After she did this research, she didn’t do personas like the other designer/researchers.

In this case, we did a research download, and we did two empathy maps. We had an empathy map from the leader's perspective because we were starting to see there was a distinct difference between how the leaders were feeling about design thinking, and then from the employee perspective. So we looked at how people were thinking, feeling, and seeing. What were they saying? And just really getting from all that data, how are they showing up as learners.

As a part of the research for this project, she would actually deliver design thinking boot camps and then gather more feedback, not just on the learning experience, but on the learner. This also provided additional insights on the learners for both her learning components and the broader project to bring design thinking to her organization.

We also develop, like, additional insights that would actually help the larger scale project, too, and I drew on those for the learning that we knew that at [our organization] they need deep knowledge in design thinking. So, we'd have someone who was an engineer who needed to use design thinking. There was, like, little things we found out in the data that we rose to the surface, insights that we formed around. For example, the wording of how we frame design thinking in the company was like it's an additive. It's something that you can add to your toolkit versus … a replacement. So that was creating animosity and challenges. They were like, well, you're telling me all of this awesome stuff that I brought to the table has to be thrown out? And the answer is, like, no. And this is a “yes, and…”
If she was not spending time with these learners, she might not have come to the same insights. She did explain how the project and organization leaders, who did not spend as much time with the learners, wanted just to push out training.

Everyone was saying, for this design thinking training, just roll it out. We want you to do it on projects that we're working on at [our organization], not a simulation, but we know from talking to the learners, they were already getting overwhelmed, and they cannot disconnect from their projects that they had. So, we needed to introduce a safe way for them to learn this new mindset. And so, it's really helped me strengthen the design that I'm doing because it's much more meaningful to them.

Both of these designer/researchers who were doing learner inquiry explained the overall benefit of spending time with their learners, not only to understand the learners as people, but also to understand the environmental context they experience every day on the job.

**Post Qualitative Learner Inquiry**

The two designer/researchers who were doing full learner inquiry were also using post qualitative methodologies in their work; however, they were using different theoretical foundations than those doing content centered inquiry. Designer/researcher one was thinking in very rhizomatic ways (Deleuze & Guattari, 1980/1987). She was thinking with lines of flight and exploring these around the rhizome of the clinic. She was also looking at how she, as a designer, could help the staff’s lines of flight, which were ended by this new process, take off in new ways post-implementation.

While designer/researcher eight was looking at job tasks and how they are changing, designer/researcher one, was looking at the entire flow and intersecting lines of flight by
the office. She was concerned with how this new tool would interrupt/rupture the rhizome of the office. For example, she explained:

These [patients] are in horrible pain. They are just absolutely miserable. And these MAs get every single one of them to laugh or smile or do something. They also have to spend a lot of time. As an example of this one woman, she had a very large, very sensitive wound. They spent probably 10 minutes slowly peeling the tape off of it so that the provider could come in and do what they needed to.

Designer/researcher one went on to explain how they need to be able to focus on that patient and getting the patient prepped for the physician, or the entire flow of the office could be thrown off.

Designer/researcher five was looking at things using intra-action (Barad, 2007). They were all thinking about how these learners would intra-act with the new material on design thinking. She was looking at the entire individual because any part of the assemblage of a person could be impacted by any part of the learning experience or what the experience was supporting. As stated earlier, she learned that her learners “were already getting overwhelmed, and they cannot disconnect from their projects that they had.” therefore, she had to be extra careful with how she designed the learning experiences. Their inability to disconnect would have intra-acted with the learning in a negative way to cause the entire project potentially to fail. She also needed to be careful to understand how their current way of working would intra-act with the introduction of design thinking.

**Novice Designers**

While the designer/researchers discussed so far are already doing some kind of learner or content focused inquiry, two were novice designers and were not doing much, if any, inquiry. Both of these designers were in the last stages or recently finished with a
master’s work in instructional design with little to no professional instructional design experience. These designers were following processes guided by their faculty members, not following design methodologies that they had navigated to on their own from practice in the field. While these designer/researchers were learner focused, for the most part, I gathered that if their faculty members had been content focused, they would be practicing similarly to their faculty.

**Becoming an Experienced Designer**

Two of the experienced designer/researchers discussed key moments in their design careers that changed how they designed and made them more experienced designers. These moments could be described using the Deleuzian concept of the event (Williams, 2014). The event, according to Deleuze, is the convergence and divergence of multiple series that create harmonious resonance and/or a moment of becoming/transformation (Williams, 2014). These multiple series come together in a fragile state that can easily be broken apart or not come together at all. In order for it to have effect, we must be worthy of the event by bringing it meaning and intensity (Williams, 2014).

Designer/researcher one described how she really understood the importance of learner focused design inquiry work. She had been learning about human-centered design/design thinking and empathic design in her graduate work while working as an instructional designer. She then described how she was working on a health IT implementation project, different than above, and one of the key deliverables was instructor-led training and a job aid. She described the “event” that really made her focus on learner design research.
I created a very large, step-by-step job aid for them. It ended up being well over 50 pages and was literally step-by-step, screen-by-screen. And in one of the more recent classes that I taught with it, I gave it to a nurse, and she kind of threw it to the side and said, “Yeah, I’m never going to look at that. Just show me how to do it.” So that, that has really stuck with me and really made me want to change how I look at things. I look at design.

This nurse’s comment was what brought everything together for this designer/researcher and created the event that now drives her internal need to do learner focused design inquiry.

Designer/researcher three discussed how going to Dubai on a design project was key to her development as a designer. She went to Dubai and being in an area where no one spoke English, and they needed to create training for cleaning staff. She said being immersed in the culture and with these learners made her realize how understanding your learners is key to design. As discussed above, understanding the hardships the learners were going through just to have this job really helped her grasp this concept.
ENHANCING DESIGN INQUIRY PRACTICES (DISCUSSION)

Throughout the conversations I had with the designer/researcher I was excited to see how many of them were working in an inquiry focused way. Many of the learning designer/researchers I talked with during this project were engaging in design inquiry without the realization that they were conducting design research. If they did know they were doing research, they didn’t use the words, practices, and thoughts that a scholarly researcher might use. While some of the designer/researchers had formal training in research methodologies that they were able to leverage, they were not focused on design inquiry.

An Evolution of Learning Design

This is a clear evolution in how analysis is being conducted in learning design. This is very different from the early ISD view of learner and content analysis (Bloom, 1976; Dick & Carey, 1978). Even later constructivist approaches to design focus on what the learner is and their environment instead of the inquiry methods that I found from talking to these designer/researchers (Smith, P. L. & Ragan, 2005).

Content Centered Design

One of the ways the researcher/designers approached content centered focused design inquiry work emerging from traditional task analysis in an systems view of instructional design (Gagné, 1968, 1985). The content focused designer/researchers I talked with were using the idea of understanding the job tasks that a learner might need to do/know within their work; however, they were doing inquiry into the organization to understand these tasks. They were then using deconstructive methodologies/thinking to
understand the interaction with the learner and their environment. They were not purely looking at the task at hand that true ISD task analysis might be doing.

While I did not specifically seek to uncover what learning theories these designer/researchers were using, it appeared that the content focused designers were coming from a behaviorist or cognitivist approach. They both spoke of using their inquiry in part to write learning objectives which get their start in behaviorist approaches (Mager, 1997). These designer/researchers also talked about doing needs assessments which have their basis in behaviorist approaches to learning (Kaufman & Guerra-Lopez, 2013). The insights from this inquiry project are showing a strong move away from the traditional models, approaches, and thought behind ISD and behaviorist approaches to needs assessment (Branch & Kopcha, 2014; Dick & Carey, 1978; Kaufman & Guerra-Lopez, 2013).

**Learner Centered Design**

The learner centered designer/researchers have made the largest shift of the group, particularly those doing learner inquiry. These designer/researchers have moved away from a traditional ISD and even away from constructivist approaches to design (Smith, P. L. & Ragan, 2005; Vygotsky, 1978). These traditional methods of learner analysis look at the learner’s demographic data and their aptitude to learn the content. The focus on understanding the learner as a person and not just a learner is a recent move in the learning design literature (Stefaniak & Baaki, 2013; Tracey & Hutchinson, 2019). The designer/researchers that are doing learner centered inquiry within their design work are putting this in to practice in their everyday work.
The designer/researchers working with SMEs are even evolving from how we have traditionally looked at SMEs in instructional design. These Subject Matter Experts through the careful inquiry work of designer/researchers are becoming Learner/Subject Matter Experts. This is a large shift from how traditional learning design might leverage an SME (Gayeski, Wood, & Ford, 1992; Tyler, 1949).

I am very happy to see the shift to learner focused design happening in practice. While the designer/researchers might not all be taking up learner inquiry practices in their work, they are thinking like researchers and attempting to get at the key learner data through the methodologies they have at their disposal. The focus gaining empathy through inquiry was a great insight to find throughout the project.

**Novice Designers**

Many novice designers I speak with in my everyday work either have no formal instructional design training or they are being taught using the traditional methods I have discussed above. These designers who are using traditional ISD or constructivist approaches to design are missing out on the evolution that the field is making. This emerged with the designer/researchers in this project. They had been taught a learner centered approach to design and were able to apply this in their work. If they had been taught in the traditional ISD model approach, they may have a much harder time making the transition to learner inquiry approaches. If we equip our novice designers with the education, tools, methodologies, and support needed at the beginning of their education/career, chances will increase that they will take a learner inquiry/centered approach to their design work.
Inquiry in Design

Very few of the designer/researchers in this project thought of the work they were doing as research. Designer who do not think/speak of design research in qualitative inquiry terms or use design inquiry methodologies, might not fully realize the benefits that research can bring to a human-centered design project. Making the realization that they are doing research might afford them the tools, methods, and thought processes that qualitative and design research methodologists have been creating for many years. These methodologies will help them remain open to new insights that they may not be expecting instead of simply accidentally validating prior ideas.

Taking up published methodologies will allow them to enter an uncertain environment and have some tools to help them navigate. This is especially important when the designers are working with vulnerable populations, such as kids, or, like designer/researcher two, adult learners returning for their GEDs. While traditional instructional design scholarship may not have many publications on working with vulnerable populations, qualitative scholars have been writing about it for years.

All of the designer/researchers who focused on learner design inquiry discussed how important it was to really understand their learner. As design scholars and educators, this tells us that we should spend more time focusing on qualitative inquiry methodologies/practices within learning design education. Teaching designers how to do interviews, observations, and focus groups would help them to do it effectively. In my own practice and coaching of instructional designers, I find that they try to help or teach while doing the research, which then hinders what data they can collect.
We also should teach designers how to write inquiry goals, interview/focus group questions, and observations guides. Among the designers I have worked with and those I interviewed, I found that design research quickly turns into design “idea validation” instead of collecting data from which insights can be drawn. While that type of research is important and can be done, open learner or empathy-based inquiry should be done first. For example, designer/researcher eight discussed how he was meeting with a group of pilot learners to validate the content and methods he was using to teach certain content instead of doing open-ended learner/empathy inquiry.

There are a lot of resources available for user experience (UX), product, and other design disciplines but very little exists, if anything, on doing learner research for instructional designers (e.g. Clarke, 2018; Crouch & Pearce, 2012; Downton, 2003; Muratovski, 2016; Thomas & McDonagh, 2013; Visocky O'Grady & Visocky O'Grady, 2017). While some of the other design research material is good and can be used, learner inquiry is unique in that we also need to understand an “unseen” aspect of knowledge. We are not only trying to understand that as people and, as designer/researcher five stated, “how they show up as learners,” but we also need to understand where they are from a knowledge perspective. To fully design a learner centered experience, we need to meet them where they are to move them forward and teach them new things. Understanding the organizational culture and potentially needing to create a safe place for them to share and learn may also be key, depending on the topic.

The basics of qualitative inquiry within learning design are key to understanding our learners. Without an understanding of research design and methodologies, a designer
can only go so far in understanding who their learner is as a person. They also may struggle to understand the organizational context in which their learner works. In the discussions with some of the designers, they may have introduced some easily avoidable issues. They were bringing their own thoughts/feelings and pre-conceived solutions into the research and not allowing themselves to be open and let their data speak (Koro-Ljungberg, 2015; Koro-Ljungberg et al., 2018).

Even designer/researchers with knowledge of research practices may benefit from understanding how doing design research and doing scholarly research might be different. While they have many similarities, as I discussed above, there are unique attributes to learner inquiry that one must be aware of. A skilled scholarly researcher might be able to make the transition; it also might benefit them to have resources or learn from a design researcher.

In scholarly research, we look for a representative sample of our key participants. While that is still true in design inquiry, we may also look to the outliers to gain the most insights. Understating the extreme learner populations in addition to a representative sample may help learning designers understand where they need to make room for individualization within a given experience. It is generally not practical to give every learner their own custom experience; however, if you learn you have a wide variance in your learners, you might need to take that into account. If you only focus on a sample and ignore the extremes, that insight may not come to light as easily.

The types of questions and amount of structure in design inquiry may also be less structured and prescribed than in scholarly research because we are looking to gain
empathy for these learners and not necessarily answer specific research questions. Designers may not initially even know what they need to learn from their learners. Therefore, an open and less structured approach, such as post qualitative inquiry, might benefit their inquiry process. If they have the skills and knowledge to do post qualitative inquiry effectively and think with theory, then they can navigate that uncertainty to understand their learners better and the assemblage within their work.

**Post Qualitative Design Inquiry**

All of these differences between traditional scholarly inquiry and design inquiry may be addressed if we take up parts of post qualitative inquiry within design inquiry. Post qualitative inquiry is a type of qualitative inquiry based in post theories. Post qualitative inquiry opens up the structures of conventional inquiry. Post qualitative inquiry also asks us to allow the data to speak and opens up how we might collect these data.

While post qualitative inquiry might be an ideal solution to doing design inquiry, designer/researchers without any research experience might be better served by learning about conventional inquiry prior to moving to post qualitative inquiry. The understanding of the broad concepts of inquiry are needed to understand and practice post qualitative work.

From personal experience, I see conducting data collection as a key skill that designers need to learn before they can start thinking in post qualitative ways. I have found many designers who are unsure of how to conduct observations, interviews, and focus groups that are designed to collect data without leading the data toward something they
already believe. Designers who have not grasped this basic inquiry skill may really struggle to fully understand their learner if asked to take a post qualitative approach.

We know from research on designers, that uncertainty is a key skill designers need in order to function well within a design thinking approach (Tracey & Hutchinson, 2016). However, we also know that it takes time to develop that skill, and when learning something new, the more structure or scaffolding is needed (Vygotsky, 1978). If we just throw designers into post qualitative inquiry without fully understanding basic inquiry techniques, they will struggle and perhaps not get the full benefit of design inquiry.

Once designers are comfortable with basic qualitative data collection, post qualitative inquiry methodologies will be a great benefit to them. Being able to think through these post qualitative inquiry methodologies using post theories will allow designers to bring new and different meaning to their data/learners/designs. Just as I was able to uncover content focused design inquiry through thinking with deconstruction, if designers use the same types of methodologies, imagine what they might be able to uncover about their learners/designs.

When looking at the needs of design and the key points of post qualitative inquiry that we explored in the “Weaving Two Assemblages” plateau, we can see how post qualitative inquiry might be very beneficial in understanding our learners. The best way to do this is to teach novice designers both traditional qualitative inquiry methodologies and some basic “post” theories, and how to take up these theories in post qualitative inquiry. Exposing novice designers to these inquiry methodologies might help them in their paths
towards an event of becoming. This event might allow them to make a transition to learner centered design inquiry in their practice as learning designers.

The “Not Yet” of Learner Inquiry

Another key tenet of post qualitative inquiry that will help learning designers, in particular, is the “not yet” of Deleuze’s ontology of immanence (St. Pierre, 2019). As St. Pierre (2019) explains, “[p]ost qualitative inquiry encourages concrete, practical experimentation and the creation of the not yet [emphasis in original]” (p. 3). She discusses how the ontologies of post qualitative inquiry are about creation and the not yet (St. Pierre, 2019). This is a key difference between what has been done in design research in other fields and learning design’s needs for design inquiry methodologies.

Product or UX design research has some similarities, but understanding a learner and an organizational context they work within brings its own challenges. Learning designers tend to be brought into an organization or project when a change is occurring or when there is a performance issue. This brings its own challenges because we may not know entirely what the new will look like, so we are doing research on a pre state to prepare for a potentially unknown post or new state of being for the learners.

Almost all of the designer/researchers discussed a project in which they were designing education for a new process, tool, or job. In all of these situations, they discussed the need to understand what the new might look like. Even if they were doing this from a content focused inquiry approach, they were trying to determine the best way to prepare the learners for the new that had yet to exist.
Taking up post qualitative inquiry and the creation of the *not yet* that comes with the methodology allows us to explore a new space and potentially help create the *new* as learning designers. This will help the learners because we can take any insights we learn from our learners and, as one of the designer/researchers said, “bring the learners’ voice to the table” to influence the direction of the *new* or *not yet* before it is implemented.

**The Becoming of The Event**

The Deleuzian event was a very surprising insight I gained from this project (Williams, 2014). If I had not been thinking with theory and using post qualitative methodologies, I might not have uncovered this moment of becoming. Exploring what takes a designer to the next step in their practice through the concept of Deleuze’s event was something I was not expecting to uncover in these data. This concept was not originally in the plan for this project; however, as Koro-Ljungberg (2015) explores, it was a concept the data wanted, similar to what Kuby, Rucker, and Kirchhofer (2015) shared as “this story needs to be told” (p. 395). I needed to explore this story within these data and uncover what these data wanted.

I see the event in designers as something that needs to be explored in further research to really understand how/when/what causes the event and how we can foster it in novice designers. I would like to understand the event in relation to learner centered design further and explore if it is something that many designers experience. Many learning professionals describe their learners “light bulb” moments, but we don’t really explore what those “light bulb” moments are for designers. I see the Event as something that might help us explore this concept of “designer light bulb moments.”
The Path Ahead

While this project provided a lot of insights into how we might expand learner centered design through the weaving of design and inquiry methodologies, there is a lot left to be explored. One of the key steps on the path forward is to explore how we might incorporate qualitative inquiry methodologies within a learning design context into design education. A methodology/practice of learning design inquiry might need to be created as well to support these novice designer/researchers.

While we might be able to do that based on the insights in this project, it might be beneficial to do some more focused learner centered inquiry with novice designers. We must also take up a learner centered design inquiry approach as we create the methodology and/or learning experiences to train designers on inquiry. We must explore the learners that bring their entire selves to the classroom and into the world as designer/researchers. We should explore what this blend of design and qualitative inquiry teaching might be/do/produce as Ulmer, Kuby, and Christ (2020b) explore in their paper and the special issue as a whole (Ulmer, Kuby, & Christ, 2020a).

A focused exploration/design of a learner design inquiry methodology taking up both traditional and post qualitative inquiry methodologies within the learning design discipline could prove to be very beneficial to learning designers. To have/design with empathy, we must first understand our learners, and giving designers a methodology to do so will give novice designers and those new to design inquiry a place to start and tools to take up in their work. I just keep coming back to the quote by designer/researcher five that we need to understand “how they show up as learners” in our learning experiences.
I believe much more scholarship needs to happen around the idea of learner inquiry and design research within learning design as a whole, whether that be in the form of studies that explore how/what designers are doing currently, and/or the publication of papers/texts to assist learning designers in the process of learning design inquiry. There also needs to be more done on the part of scholars to get their scholarship implemented in practice. While I am unsure of the best ways to do these things, it is something that should be explored in the future.

My hope with this project is that it starts a transition to thinking of learning designers as also being researchers. With this transition, I hope the ability to empathize with our learners grows through careful/thoughtful learner center inquiry and expands to create learning experiences that are creative/innovative/impactful and, most importantly, learner centered.
APPENDIX – WAYNE STATE UNIVERSITY IRB APPROVAL

CONCURRENCE OF EXEMPTION

To: Preston Kelly
   Administration & Organization Stud

From: Dr. Deborah Ellis
   Chairperson, Behavioral Institutional Review Board (B3)

Date: May 30, 2019

RE: IRB #: 052119B3K
   Protocol Title: Opening Up Empathy and Design: The Expansion of Empathy In Design Through The Weaving of Post Qualitative Inquiry and Human Centered Design
   Sponsor:
   Protocol #: 1905002233
   Status Check-in Date: May 20, 2021

The above-referenced protocol has been reviewed and found to qualify for Exemption according to paragraph #2 of the Department of Health and Human Services Code of Federal Regulations [45 CFR 46.101(b)]:

• Social/Behavioral/Education Exempt Protocol Summary Form (received in IRB Office 05/05/2019)
• Research Protocol (received in the IRB Office 05/05/2019)
• Medical records are not being accessed therefore HIPAA does not apply
• Research Information Sheet (revision dated 04/30/2019)
• Recruitment Email
• Data Collection Tool (1): Interview Questions
• Please submit a Status Update Report for this project by 05/28/2021. The Minimal Risk Status Update Form should be used to provide a status report to the IRB. The Minimal Risk Status Update Form is available on the IRB’s website (http://research.wayne.edu/irb/forms-requirement-categories.php). Modifications/changes to the research project will need to be submitted via an amendment to the WSU IRB.

This proposal has not been evaluated for scientific merit, except to weigh the risk to the human subjects in relation to the potential benefits.

* Exempt protocols do not require annual review by the IRB. However, the IRB does require a status check-in to maintain accurate records regarding the research. The Status Update Report Form is available on the IRB’s website (irb.wayne.edu).
* All changes or amendments to the above-referenced protocol require review and approval by the IRB BEFORE implementation.
* Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframe specified in the IRB Administration Office Policy (http://irb.wayne.edu/policies-human-research.php).
NOTE: Forms should be downloaded from the IRB Administration Office website
http://irb.wayne.edu at each use.

Notify the IRB of any changes to the funding status of the above-referenced protocol.
REFERENCES


ABSTRACT

EMPATHY THROUGH INQUIRY: THE WEAVING OF (POST) QUALITATIVE INQUIRY INTO DESIGN

by

PRESTON TYLER KELLY

May 2020

Advisor: Dr. Monica Tracey

Major: Learning Design and Technology

Degree: Doctor of Philosophy

Learning design is moving toward more human-centered design methodologies. One key component of human-centered design is empathy. To have empathy, designers must understand their learners as people and “how they show up as learners” within our learning experiences. To do this, designers need to do learner research. One way to do this inquiry work might be to take up post qualitative inquiry because so many of the key tenets of design thinking and post qualitative methodologies are similar.

Through interviews within a post qualitative framework, this project looks at how designers go about this design research to understand their learners. Several insights came out of this project, including two types of design inquiry and an understanding of how designers might make a shift in their design practices. The two types of design inquiry are content focused inquiry and learner focused inquiry. Designers using both of these approaches are thinking in post qualitative ways; however, they are thinking with different theories. The other key insight was that many of the designers interviewed experienced a
Deleuzian event. This caused them to make a shift in how they think/practice design and inquiry. They were generally moving to a learner focused approach from a more content focused approach to design.

Design scholars and educators might look at how they can incorporate the basics of qualitative inquiry into their writing/teaching about design. This may help newer designers do better learner inquiry and design better learning experiences. There may also need to be a design inquiry methodology focused on post qualitative inquiry and centered around learning design to help move the field toward stronger learner inquiry.
AUTOBIOGRAPHICAL STATEMENT

Preston Tyler Kelly has over ten years of experience in learning and development. He is currently a manager of learning design and delivery at Michigan Medicine within the University of Michigan. He has also been a senior instructional designer, learning and technology specialist, and an instructional design and organizational development coordinator/team lead in other health care organizations. His previous degrees include a Master of Education in Instructional Technology from Wayne State and a Bachelor of Business Administration in Health Care Management from Northwood University. He is currently on the curriculum advisory board for the Health Care Management program at Northwood University.