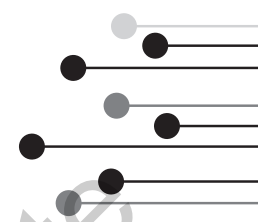


## Guiding Questions for Chapter 1

- Historically, how have qualitative approaches been used to study learning in online spaces?
- How does the concept of remixing multiple approaches lend itself to the study of learning within online spaces?
- What are some ways in which researchers can remix multiple qualitative approaches in order to study learning in online spaces?

# How Can Learning in Online Spaces Be Informed by Qualitative Research?



## Introduction

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Conducting research in online spaces can be challenging, but rewarding. Online environments often seem like brave new worlds filled with unknown and exciting areas for discovery. By exploring existing qualitative approaches to studying learning in formal and informal online spaces, researchers will be able to better understand the development of multimethod approaches.

Readers can expect to see how examples of online learning, from initial design to data collection to data analysis, are addressed in light of the porous boundaries that loosely separate online and offline worlds (Burnett, 2011; Burnett & Merchant, 2014). This chapter provides an overview of seminal constructs that impact qualitative inquiry—namely mental models, research traditions, and inquiry paradigms—and offers insight into methodological shifts as well as researcher agency and creativity.

## Mediated Spaces and Online Learning

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For qualitative researchers wanting to understand the everyday, the Internet has therefore become almost unavoidable, but is also often troubling in the extent to which it seems to challenge our starting premises about who we study, where they are, and what they do there. (Hine, 2013, p. 2)

Advances in technology have led to new and shifting landscapes, often presenting researchers with multiple challenges in investigating evolving online spaces and practices. Consequently, researchers may grapple with questions about designing their study to best understand online meaning making (Black, 2008; Gee, 2007; Hine, 2000; Nardi, Ly, & Harris, 2007). This book highlights how scholars have examined learning in digital spaces, and it provides seminal examples and prompts to inform and inspire future research. This book pushes researchers to think through existing approaches and methodologies, and to consider alternative and multiple ways to approach the study of learning in online spaces.

The Internet and online learning are not new. In fact, online social spaces like Usenet and multiuser domains, also known as MUDs, were present in the 1970s. These eventually led to other variations, such as MOOs (a MUD that is object oriented) and MUVES (multiuser virtual environments) that supported flexible environments and user creativity (Slator et al., 2007). Though research has attempted to define characteristics of online learners (Dabbagh, 2007), examining the features of online spaces will allow researchers to explore more deeply examples of meaning making.

In so doing, this book calls attention to the complicated nature of investigating learning in online spaces. Given that online environments continually and often dramatically change, this book avoids claims about what online learning spaces are. Instead, this book provides understandings of how researchers have collected, generated, and analyzed data, as well as (re)considered the affordances and limitations of their chosen approaches.

## **Making Pragmatic Choices About Methods**

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Questions of learning and education often cross traditional disciplinary boundaries and demand complex data collection and analyses. As such, it is possible and frequently useful for researchers in these areas to adopt, develop, and mix methodologies that draw from a variety of traditions. This tradition began with mixed methods scholars who initially sought to escape the “paradigm wars” of earlier generations. (An excellent history can be found in Tashakkori & Teddlie, 1998.)

Initially, it was most common to combine qualitative and quantitative measures. One definition of mixed methods describes it as “research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or program of inquiry” (Tashakkori & Creswell, 2007, p. 4). In current research, however, multiple combinations of methods, known as multimethod research, are possible and support the emergence of new descriptions and insights.

When beginning an investigation, researchers must hone their ideas for the study’s focus. For example, rather than collecting all possible data in an online setting for learning, are particular kinds of interactions more interesting? Do online interactions suggest another relevant avenue to pursue? A number of different analyses or data sources might be investigated as ways to examine particular areas of the online spaces, or they could be used to tease out certain kinds of learning processes that become more evident as the researcher enters the space.

As educational research has evolved, the field has become more willing to accept mixed, open-ended, and naturalistic frameworks. In past years, many

studies of learning environments were planned as deliberate experiments, and as such, frameworks for data collection and analysis were often seen as immutable contracts in which the researcher promised to study definite research questions in established, specific ways. This particular image of the analytical framework does not work as well in qualitative studies where interpretation and mapping are central activities to a study's development. For example, many ethnographers first engage in mapping field sites to inform their foci and early interpretations. Such activities are central to a study's development. Some mixed methods researchers have presented pragmatic frameworks that are particularly useful in new and evolving environments—that is, encouraging fellow researchers to choose philosophical stances, methods, and designs that speak most directly to their research questions (e.g., Johnson & Onwuegbuzie, 2004).

This kind of eclectic “alternative paradigm” (Greene, 2007, p. 82) design is both practical and somewhat controversial, in that some researchers (e.g., Lincoln & Guba, 2000, 2002) believe that initial paradigmatic assumptions are central to the way inquiry unfolds. In other words, if a researcher believes that social aspects of meaning making are central to learning, these ideas deeply influence the resulting settings chosen for study, data collected, and analyses undertaken. Despite this intertwined nature of philosophy and method, advocates for a pragmatic stance, including Burke Johnson and Anthony J. Onwuegbuzie (2004), claim that basing research in practical choices makes sense for many studies, and “taking a non-purist, or compatibilist or mixed position, allows researchers to mix and match design components that offer the best chance of answering their specific research questions” (p. 15).

Nevertheless, it is important to remember that foundational mixed methods work typically assumes that researchers will define a single research site and approaches to its study from the beginning of the inquiry and will include the collection of both quantitative and qualitative data sources (Creswell, 2015). Today, many online learning spaces are spread across several resources, websites, and social media. In the remainder of this book, we will theorize such environments as networked field sites to describe this multiplicity. In such environments, it may be difficult accurately to map a line of online inquiry at the inception of study, much less to devise hypotheses or clear directions for data collection. Online researchers often discover new artifacts, ideas, or ways of sharing meaning in the course of their inhabitation—information perhaps unconsidered in the initial study design or analysis plan. In such situations, practicalities may be even more central in completing a successful inquiry. Multiple methods and methodologies may become useful to a researcher's theorized understanding of a space, and a pragmatic frame allows for this kind of evolution to occur.

Jennifer C. Greene (2007) has noted that these ideas and decisions are complex ones. On one hand, researchers may make nominally pragmatic choices in

response to a particular happening. On the other, researchers' actions are guided by their mental models of and assumptions about their inquiry, regardless of whether they explicitly state or interrogate these beliefs. Extending the ideas of Phillips (1996) and Smith (1997), Greene explained that mental models are borne from many aspects of a researcher's education, experience, and context, and they can profoundly affect how inquiry is carried out. Reflecting actively on these choices and evolving ideas strengthens the study overall, making it "more generative and defensible" (p. 59). Mental models, in other words, are tools for developing and staying true to a study's logic of inquiry. Periodically considering and interrogating expectations for how various data sources and analyses will contribute to meaning making in an ongoing way, researchers can consider such models as statements of philosophical and field-based commitments (Morgan, 2007). As Bloome (2012) has reminded the field, "The meaningfulness of any set of research methods and techniques must, after all, be derived from the principles in which they are embedded" (p. 8). While Bloome's discussion focused on classroom ethnography, the statement holds true across methodological traditions.

## Choosing Among Qualitative Traditions

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Qualitative research is an established form of inquiry that explores people's experiences in their natural settings (Creswell, 1998). These traditions can be used in concert, as a researcher sees the need emerge, as a means to appropriately attend to the research question and the examined online space. This is not suggesting that existing traditions be abandoned or misappropriated. Rather, harkening back to Christine Hine's (2013) discussion of researching online spaces, studying online meaning making can be challenging, and looking first to established traditions can help researchers appropriate the right methods for their studies. This book examines the core features of qualitative inquiry found in case study, ethnography, grounded theory, and phenomenology. However, this list of approaches is not exhaustive.

As Sharan B. Merriam (2009) aptly noted, other methodology scholars, such as Michael Quinn Patton (2002), John W. Creswell (2007), Norman K. Denzin and Yvonna S. Lincoln (2005), and Renata Tesch (1990), have called attention to a variety of approaches. Their classifications, which include a range of five to forty-five approaches, thereby underscore that there is "no consensus" in categorizing qualitative inquiry (Merriam, 2009, p. 21). We do not intend to offer or recategorize traditions. Instead, this book provides options—namely, options for researchers to take an agentive stance and extend existing approaches beyond the boundaries of their existing constructs. Following the discussion of the four aforementioned qualitative traditions, this book addresses research paradigms that inform research approaches.

## Qualitative Approaches

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Qualitative research predates the advent of the Internet, and established traditions have been used to study online spaces. Scholars have found four key approaches—case study, ethnography, grounded theory, and phenomenology—to be helpful in examining and understanding the processes, products, and interactions inherent in learning in online spaces.

### Case Study

Researchers select a case study approach when they are interested in examining a phenomenon that is bounded. That is, data collection would be limited to examining a defined aspect, be it a particular person (e.g., a student), a group of people (e.g., a classroom, a school), or a program (e.g., a coding workshop). It can extend to include sites of study, activities, or processes (Johnson & Christensen, 2014). Robert K. Yin (2014) explained:

The distinctive need for case study research arises out of the desire to understand complex social phenomena. In brief, case study allows investigators to focus on a “case” and retain a holistic and real world perspective—such as in studying individual life cycles, small group behavior, organizational and managerial processes, neighborhood change, school performance, international relations, and the maturation of industries. (p. 5)

Regardless of the focus of study, the case must fall within the bounded system that the researcher has defined.

According to Robert E. Stake (1995), there are three types of case studies. In **intrinsic case studies** the researcher attempts to understand a single case that is being studied, such as studying a particular student to better understand the strategies and methods that the particular student uses in learning processes. In **instrumental case studies**, researchers study cases to gain insight into issues that inform other situations and sites. For example, a researcher might study a student to better understand the impact of an innovative curriculum that has recently been implemented. The instrumental aspect is the area of interest, which is the impact of the curriculum, and the case of the student allows the researcher to dig into this question of importance. The **collective case study**, or multicase design (Yin, 2014), allows researchers to compare similarities and differences among cases in order to gain a more comprehensive understanding about a theory or issue. For example, the researcher may still have interest in understanding the impact of an innovative curriculum, but may choose to study

several students and teachers simultaneously to address the question of the curriculum's impact.

Researchers have conducted case study research to understand learning in online spaces (e.g., Glazer & Hergenrader, 2014). Rish's (2014) instrumental case study of collaborative writing, digital cartography, and videogame design in a high school English classroom included classroom observations and student interviews. He analyzed the transmedia artifacts students created using programs such as AutoRealm, Terragan, and RPG Maker. Rish's use of case study allowed him to explore trial and error within online learning and the role of transmedia resources in collaborative world building.

## Ethnography

Ethnography focuses on understanding cultures and communities. It emerged out of the field of anthropology in the early twentieth century and means "writing about people" (Johnson & Christensen, 2008, p. 44). Ethnography aims to better understand the perspectives, attitudes, shared values, norms, practices, and interactions of a given group of people through rich, thick description (Geertz, 1973). As such, ethnography requires researchers to become participant observers, immersing themselves in a specific community context in order to collect data such as artifacts, interviews, and extensive field notes. In online spaces, researchers have conducted investigations in situ (e.g., Black, 2008; Ito et al., 2010; Lee, 2014), adapting ethnographic methods to engage in online and connective ethnography.

**Online ethnography**, also referred to as virtual ethnography (Hine, 2000) and netnography (Kozinets, 2009), is concerned with the data collection methods used to understand interactions within online spaces. Online data collection methods build on traditional ethnographic principles, which include a bricolage (Lévi-Strauss, 1962) of methods and tools that are continually refashioned and reworked to address the needs of the researcher.

Participant observation in online environments, whether through interactions with participants in massively multiplayer gaming worlds (Nardi, 2010; Steinkuehler, 2007), or interactions with participants in fanfiction communities (Magnifico, Curwood, & Lammers, 2015; Martin, et al. 2013), has become a central component within online ethnographic research. However, this kind of research also creates the need for researchers to better understand how to define the boundaries of a learning space. As explained further in Chapter Two, a field site for an online study can be both moving and porous, and researchers need to remain aware of these changes and be flexible in their approaches. The field site is dictated by the interactions among the individuals, the resources and tools that they use, and the social context of the learning situations.

Because of the importance of both online and offline spaces in people's learning, many researchers have recognized that the online and offline worlds inform one another. Thus, researchers need to pay close attention to the intersections between worlds (Fields & Kafai, 2009; Leander, 2008; Leander & McKim, 2003). One way is through **connective ethnography**, which acknowledges the connection between online and offline practices and environments.

Kevin M. Leander (2008) explained that, stemming from Hine's (2000) concept of virtual ethnography, *connective ethnography* is "a stance or orientation to Internet-related research that considers connections and relations as normative social practices and Internet social spaces as complexly connected to other social spaces" (p. 37). Examples include, but are not limited to, the study of instant messaging practices among adolescents (Jacobs, 2004) or the ways in which immigrant youth develop their literacy skills through their computer-mediated communication (Lam, 2000).

## Grounded Theory

Barney G. Glaser and Anselm L. Strauss (1967) introduced grounded theory to research actions, interactions, and social processes—areas where they felt that other qualitative approaches fell short. Though the two sociologists can be credited with the development of this approach, other researchers have worked to further develop grounded theory methods to enable scholars to have a more fluid and less restrictive approach (Charmaz, 2006; Corbin & Strauss, 2007; Johnson & Christensen, 2014). For example, Kathy Charmaz (2006) developed her constructivist grounded theory approach to expose the power dynamics between the researcher and the researched.

**Grounded theory** studies rely on visits to the field site—whether through interviews, observations, or chat logs—and data analysis begins when the researcher is still in the field. The researcher moves back and forth between collecting new data and comparing it to the emerging themes in the data, a process known as constant comparison. As the researcher begins to generate theory, he or she is involved in an initial coding stage, called open coding. In open coding, the researcher takes data and segments it into multiple categories. The second step is axial coding, where the researcher identifies a core concept and returns to the data to better understand how the concept is represented within the data. The final step, selective coding, is where the researcher takes the central concept and relates it back to other categories so that the central concept becomes more refined.

Grounded theory has been used to understand the experiences of students learning in online environments (Crittendon, 2006; Feeler, 2012; Gerber & Price, 2013; Yalof, 2014). For example, in order to understand in-service



teachers' perceptions of games-based learning as a teaching practice, Gerber and Price (2013) conducted a grounded theory analysis of teachers' discussion boards to better understand teachers' views of games-based learning within literacy classrooms. Relying on discussion board logs, Gerber and Price studied thirteen teachers enrolled in a graduate class on videogames and literacy. Using constant comparison analysis (featuring open, axial, and selective coding), they analyzed over one hundred discussion boards to gain an understanding of teachers' views. The use of constant comparison allowed the researchers to continually reformulate their thoughts and theories, as grounded in the discussion board data, and it facilitated the emergence of themes related to collegial surveillance and the lack of available professional development opportunities.

## Phenomenology

Phenomenology is rooted in the work of German philosopher Edmund Husserl and is focused on understanding the lived experience of participants in relation to a given phenomenon. For example, Leander and Boldt's (2013) account of two children playing with manga stories, related toys, and trading cards showed how literacy activities may not always be deliberately designed, but may be improvisational and responsive to current, changing emotions and play conditions. Similarly, Wargo (2015) documented how a participant used smartphone apps like Snapchat and Map My Walk, as well as the gestures that dictate their use (e.g., swiping, tapping), to create, re-create, compose, and share experiential narratives.

According to Creswell (2013) there are two types of phenomenology: hermeneutical phenomenology (van Manen, 1990) and transcendental phenomenology (Moustakas, 1994). Hermeneutical phenomenology is oriented toward understanding the lived experiences by researching the texts of life, which are referred to as the hermeneutics. According to the approach used by Max van Manen, researchers first identify a phenomenon, reflect on essential themes, and maintain a personal connection to these happenings. In their study of the online educators' experiences, De Gagne and Walters (2010) employed a hermeneutic phenomenological approach in order to gain insight into participants' narrative accounts. This allowed for a reflection on "how they interpret and express their experiences through interviews" (Polit & Beck, 2004, p. 358).

Given that "phenomenology is not only a description, but also an interpretive process in which the research makes an interpretation . . . of the meaning of the lived experiences" (Creswell, 2013, p. 80), Clark Moustakas's transcendental phenomenology seeks to keep researchers' interpretations separate from the data. In so doing, transcendental phenomenology begins with researchers "describing their own experiences with the phenomenon and bracketing out their views before proceeding with the experiences of others" (Creswell, 2013, p. 80), thereby acknowledging preconceptions prior to data collection and analysis.

## Participatory Approaches

Though not an established tradition, and often combined with aforementioned approaches, **participatory research** is used by researchers who wish to privilege participant voices, reduce researcher bias, and engage in “translocal” understanding (Burnett, Davies, Merchant, & Rowsell, 2014). Rooted in a nonconforming perspective of research design (Johnson & Onwuegbuzie, 2004), **participatory learning** encourages participants to be part of the research, from its conceptualization to the dissemination of findings. Some researchers have suggested that participatory approaches are crucial for overturning power dynamics inherent in traditional research approaches (Bergold & Thomas, 2012; Morrell, 2006; Onwuegbuzie & Frels, 2013).

Researchers using participatory approaches often strive to empower underrepresented, underserved, marginalized, or oppressed individuals and groups. For instance, when Michelle Fine and colleagues (2005) engaged in an “ethnographic analysis of the political economy of schooling as lived by youth in and around the New York City metropolitan area” (p. 500), they purposely included youth researchers who “played a vital role in determining the research design, questions, methods, interpretations and products” of the study (p. 501). In so doing, they found that the youth-as-researchers developed critical stances related to racism and social justice. Fine and colleagues featured some of the youth researchers’ reflections and discoveries, such as, “I used to see flat. No more . . . now I know things are much deeper than they appear. And it’s my job to find out what’s behind the so-called facts. I can’t see flat anymore” (p. 523). This suggests that participatory research could inspire a critical awakening among youth-as-researchers.

Critical dialectical pluralism (CDP) is a research philosophy that embraces the ethos of participatory research. In particular, critical dialectical pluralism creates pathways for participants to be maximally involved as researchers throughout the process, especially with respect to the dissemination and utilization of the findings (Onwuegbuzie & Frels, 2013). Adopting a CDP stance, Gerber, Abrams, Onwuegbuzie, and Benge (2014) worked collaboratively with adolescent participants to understand their engagement with multiple online and offline gaming resources as used in a public school remedial reading class. Given that the research took place during the school day, the participatory approach underscored the disruption of power dynamics between the teacher and the student, as well as between the researcher and the participant. The CDP stance allowed the research team to collaboratively trace learning across these resources and spaces, while honoring the perspectives and voices of participants through the entire research process—from conceptualization through research dissemination.

Participatory approaches may suggest that power structures and hierarchies can be eliminated, but such a stance seems idyllic and inaccurate because

the reality is that youth-driven research participation remains under adult auspices. Barry Checkoway and Lorraine Gutiérrez (2006) underscore this point in their introduction to their edited volume on youth participation. Not only did they acknowledge the benefits of participatory research, but also they addressed the possible limitations: “Although participation initiatives might be youth-led, adult-led, or intergenerational in their origins, we recognize that none of the ones described here is truly youth-led. However, we reiterate that the quality of participation is not contingent on this approach” (p. 6). These concerns should not undermine participatory research; rather, they remind researchers to be cognizant of inherent power structures, thoughtful of their own presuppositions, and careful in their approach to include participant voices and decisions.

## Research Paradigms and Philosophical Stances in a Study’s Design

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Creswell (2012) relied on the metaphor of a loom to address the traits of qualitative research. Creswell stated that qualitative research is like

an intricate fabric composed of minute threads, many colors, different textures, and various blends of material. This fabric is not explained easily or simply. Like the loom on which fabric is woven, general assumptions and interpretive frameworks hold qualitative research together. To describe these frameworks, qualitative researchers use terms—constructivist, interpretivist, feminist, postmodernist, and so forth. Within these assumptions and through these frameworks are approaches to qualitative inquiry, such as narrative research, phenomenology, grounded theory, ethnography, and case studies. (p. 42)

Creswell (2012) pointed out that philosophical assumptions, mental models, interpretive frameworks, and approaches to methods are woven tightly together. In other words, researchers’ own understandings, beliefs, and biases are difficult to separate from the tools that they use and craft in order to engage in inquiry, even when the intention is to be as objective as possible.

Methodological approaches to conducting a study should not be chosen arbitrarily. The design of the research questions are determined by the defined research purpose, the research questions, and the worldview, or paradigm, that a researcher brings to a study. A study’s design, and its corresponding research questions, will be strengthened by researchers’ regular reflections on their own assumptions and mental models.

Various researchers (Creswell, 2013; Guba & Lincoln, 1994; Tashakkori & Teddlie, 1998) have identified major **research paradigms** that shape a study's design, including positivism, postpositivism, critical theories, constructivism, and pragmatism. While other paradigms and philosophical stances exist, these broad categories shown in Table 1.1 highlight major defining ideas that frame researchers' inquiry. In short, using the concept of a "paradigm" to refer to a set of shared beliefs among researchers can be traced to Thomas Kuhn's (1962) text, *The Structure of Scientific Revolutions*.

Morgan (2007) has noted that this term has been taken up by social sciences researchers in several ways that are not always easy to distinguish from each other: "Paradigm" can define something as broad as a researcher's worldview—an epistemic stance that reflects beliefs about knowledge, beliefs that are shared across members of a field—or something as narrow as a model for research. Morgan explained that "these four versions of the paradigm concept are not mutually exclusive. Nor is one of them right and the others wrong. Instead the question is which version is most appropriate for any given purpose" (p. 54). Despite the noted range in definition, the word *paradigm* is most often used to describe an epistemic belief about knowledge, as in Table 1.1.

A **positivist** paradigm—a stance that was common through World War II—suggests that it is possible to use scientific methods to identify true, verifiable, value-free statements about the world. However, a **postpositivist** paradigm places some critical limits on that truth, acknowledging that "truth" and "reality" are by nature imperfect constructions because observations and findings are never free of human theory and intervention.

Table 1.1 Research Paradigms

Research Paradigm	Traits
Positivism	An assumed reality exists that can be tested and verified through research methods.
Postpositivism	Belief that an assumed reality exists, but that researchers can come to know it only in part.
Critical Theories	Seek to understand various situations and multiple realities. The researcher must take into account social, political, cultural, economic, ethnic, and gender factors.
Constructivism	Knowledge is a human and social construction where realit(ies) are co-constructed. A participatory paradigm extends from constructivism and attends to participant-researchers who co-construct knowledge with investigators.
Pragmatism	Concerned with the practical and with what works.

A **constructivist** paradigm might note that facts and truths are constructed by scientists and social scientists within human contexts, and so are unlikely to be verifiable by all observers, while a **critical theorist** paradigm would seek to understand the value systems that affect how such findings might be perceived among different groups of people or historical periods. (For more detail on these definitions, see, e.g., Lincoln & Guba, 2000; Tashakkori & Teddlie, 1998.)

While approaches to research are rarely directly associated with methods, typically quantitative experimental methods have been associated with positivist and postpositivist paradigms, and qualitative and naturalistic methods with constructivist and critical paradigms. When viewed in this way, it begins to become clear why mixed methods research has been such a significant and controversial evolution in methodology: How is it possible to combine techniques that have different views about the nature of knowledge itself?

Several approaches to mixing paradigms and methods exist, but Greene (2007) favors a “dialectical” stance (pp. 59–60), wherein the multiple knowledge paradigms, methods, and mental models about what those methods help researchers learn or accomplish are brought deliberately into conversation with each other. In this way, researchers can gain insight into more complex findings and perspectives that may be possible only when these contradictory stances are interrogated together.

Still other researchers favor a pragmatic stance toward mixing methods, in which the focus is placed not on broad epistemic or ontological claims, but on how particular methods will help researchers to inquire more successfully into particular settings or research questions. This position is derived from the work of American theorists such as Charles Peirce, William James, and John Dewey, who sought to develop a philosophy of how actions, ideas, and methods reflect human experience and advance democratic ideals.

Taking up this position, Morgan (2007) questioned the usefulness of paradigmatic assumptions: “Although paradigms as epistemological stances do draw attention to the deeper assumptions that researchers make, they tell us little about more substantive decisions such as what to study and how to do so” (p. 52). In other words, thinking about such questions as the nature of truth and knowledge may pull researchers away from more immediate questions, such as their reflections on the design of their inquiry.

Additionally, Johnson and Onwuegbuzie (2004) explicitly championed **pragmatism** as a paradigm for mixed methods. They did so to help scholars find a middle position between a “purist” stance (where mixing methods or paradigms is not defensible) and an “a-paradigmatic” stance (where methods are chosen without regard to broader philosophical concerns). Instead, pragmatism helps research designers to choose philosophical stances, methods,

and procedures that speak most directly to their research questions. As Greene (2007) explained, “To approach mixed methods inquiry pragmatically does not mean to ignore or set to one side philosophical assumptions and stances when making practical methods decisions. For that is the a-paradigmatic stance. Rather, a pragmatic paradigm signals attention to transactions and interactions; to the consequential, contextual, and dynamic nature of character of knowledge; to knowledge as action; to the intertwining of values with inquiry, and so forth” (p. 85).

We call attention to the pragmatic research paradigm to emphasize the connection between research methods and context. In other words, researchers may need to select multiple methods to gain a rich understanding of learning at a particular time and place, particularly in online spaces where learning often happens across many times and places. Although we emphasize this approach, we do not intend to privilege it; rather, we believe that there are multiple valid perspectives in and across research of learning in online spaces, and that it is important for researchers not to feel confined or constrained by one paradigm.

## Pragmatic Research and Remix: Considering Multimethod Approaches

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Given that pragmatic research connects research design and contexts, researchers have opportunities to take creative and agentive approaches to data collection and analysis. In this section, we introduce the concept of **remix** as it has been understood in literacy research. Then, we apply the remix framework pragmatically to mixed approaches to suggest that researchers can find the most appropriate and effective methods for their study when they can customize their approach.

Drawing on Creswell’s (2015) concept of multimethod research, this section introduces how researchers might draw on multiple forms of qualitative data from networked field sites. Creswell (2015) indicated that researchers should not conflate mixed methods research with multimethod research. As he explained in *A Concise Introduction to Mixed Methods Research*, “When multiple forms of qualitative data are collected, the term is *multimethod* research, not mixed methods research” (p. 3, emphasis in original). Using multiple aspects of various traditions and data sources can lead to methodologically rich inquiries of online learning.

### Remix

The concept of remix existed long before the age of the Internet and new media. One can look back to the Star Trek fandom magazines for a brief glimpse into

the spaces of remix in popular culture. Star Trek fanzines were magazines written by “Trekkie” fans and based on different episodes, characters, and ideas posed in the various televised episodes. Popular culture and media scholar Henry Jenkins (1992) examined the concept behind Star Trek fandom magazines through Michel de Certeau’s (1984) concept of textual poaching. He found that reclaiming textual materials reflected fans’ beliefs and thoughts versus authorial imposed concepts, thereby providing fans a sense of ownership. As Jenkins claimed, traditional academic writers have been quick to place fans in a marginalized community, disparaging multiple fandoms as infantile, rudimentary, and unsophisticated in their approaches to experiencing texts. However, Jenkins suggested that this type of fan-based textual poaching not only allows for new engagement in and creative remixing of media texts, but also provides a moral economy (a set of rights and ownership) to fans who might otherwise be further marginalized.

More recently, new literacies scholars Michele Knobel and Colin Lankshear (2008) explained that remix has deep roots within the music industry, noting how audio-editing techniques have allowed artists to take apart and reorganize original songs and transform them into other musical creations. Building on this discussion of restructured song creation, Knobel and Lankshear argued that there are many avenues for individuals to engage in remix, particularly in the age of online media creation. Some contemporary examples of remix include:

- **Fanfiction**—narrative or poetic text that enthusiasts create, using and extending characters, ideas, and information from a particular book, movie, videogame, or other fandom.
- **Machinima**—derived from the portmanteau of machine and cinema, it is the creation of films through manipulation of videogame graphics.
- **Mash-Ups**—remixed musical tracks created by blending two or more songs together to create a hybrid song. Mash-ups often combine instrumental music with the vocals from another song.
- **Memes**—first introduced by Dawkins (1976), who used the term to address genes and DNA mutations. The meaning of this word now also characterizes cultural transmissions, often graphics or short animations with textual captions that pass from one person to the next, with slight variations between each passing.

What is central to each of the explanations of remix is the concept of creators’ agency, especially as it involves one building on and reworking established texts

and concepts. With remix, customization is both acceptable and encouraged. When applied to discussions of research methods, remix offers flexibility, but it also requires the researcher to constantly negotiate and rationalize methodological and paradigmatic choices. Currently, mixed methodology supports the combination of qualitative and quantitative research methods, and we call attention to remix to highlight researchers' agentive and creative possibilities when designing and conducting a multimethod qualitative investigation. More specifically, we suggest that a remix-inspired **multimethod approach** can be used to examine meaning making across online and offline spaces.

As introduced earlier, connective ethnography is an example of researchers taking creative and agentive stances as they investigate learning in online spaces. Leander (2008) acknowledged that "connective ethnography is informed by developments in several other fields, where notions of the research 'site' are being disrupted and relations are being traced among sociocultural practices and agents" (p. 37). Deborah A. Fields and Yasmin Kafai (2009) conducted a connective ethnography to examine how inhabitants of the virtual world Whyville moved and participated across the site. Not only did the researchers use a combination of data collection methods—from video to back-end data tracking to field notes and interview—but also they relied on the "insider gaming practice" of teleporting to investigate knowledge sharing and movement within the site (p. 48).

In this way, Fields and Kafai (2009) investigated networked field sites, as the site of the study was neither relegated to a singular space nor temporally limited. We argue that such thoughtful and productive remixing of methods is similar to what Greene (2007) and other mixed methods researchers might call a "dialectical" or "complementary strengths" combination of methods. There, seemingly disparate approaches (e.g., back-end data mining and face-to-face field notes) were brought together to create new insights about how participants learned to inhabit Whyville online and offline. Such innovative study designs advance the field of educational research and challenge researchers to attend to how learners move across and through multiple spaces.

Networked field sites allow researchers to trace how individuals move through multiple online spaces (e.g., from a Facebook site, to a fanfiction site, to a blog space) in order to make meaning. Researchers may call on multiple approaches to understand meanings made across spaces, just as Fields and Kafai (2009) did when examining participatory practices in Whyville. In this way, we can see how an emphasis on agency and creativity can move the field forward because researchers can be encouraged to view the boundaries of methodological traditions as porous; that is, researchers can see how methodologies can be combined to customize a research approach that is appropriate for a particular context of inquiry.



Inspired by remix, researchers may bring together a number of methodological approaches in order to investigate and understand meaning making within and across online spaces. Customizing a research approach, however, needs to be done with care. It would be irresponsible to simply draw from different traditions without an appropriate lens and purpose. As such, researchers should reflect on the affordances and limitations of the multiple methods, and ask questions such as these:

- In what ways will the various methods work in concert to capture and discover meaning making that spans online and offline environments?
- How will the remixed approach support the investigation of diverse field sites?
- How will the approach enhance critical reflection of researcher positioning and bias?

Using the lens of remix, this book features examples of agentic and creative research approaches from design to data collection to data analysis. More specifically, we highlight how drawing on multimethod approaches and traditions can enable researchers

- to move across various online sites, following participants, events, or networking residues (see Chapter Two and Chapter Four);
- to traverse and analyze online and offline data (see Chapter Four);
- to collect and gather participants' cultural productions and systematically (whether chronologically, spatially, or another category) trace the evolution of those productions (see Chapters Five and Six);
- to gather available back-end data (keystrokes, log-in data, and other algorithm data) and combine those data with traditional qualitative data, such as interviews (see Chapter Six);
- to understand and implement ethical approaches to entry into networked field sites (see Chapter Seven); and
- to engage in cocreation and coproduction in designing research studies with participants, even across disparate studies (see Chapter Eight).

As researchers embrace multiple approaches to study meaning making in a variety of online spaces, it is important to examine the creative and agentic techniques promoted by the concept of remix that one might take in designing his or her study. As more scholars enter their various fields of study (e.g., nursing,

education, cultural anthropology, social work) recognizing that online spaces are important, scholars may be concerned with, and interested in, the diverse ways people engage in learning in online spaces. This might influence how researchers design studies to better understand these practices and meaning-making experiences. Judiciously selecting multiple appropriate methods to get to the heart of a research question is one of the biggest promises in looking at online research through the lens of remix.

## Conclusion

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The study of learning in online spaces can be vastly enriched when researchers consider the plethora of ways that learning unfolds dynamically in and across networked field sites. Because contemporary frames for meaning making within online environments cannot be relegated to a one-size-fits-all model, methodological approaches also must be reconsidered. As indicated, researchers should examine the framing of mental models and logics of inquiry that help to further shape their analytic frames. From there, researchers can adopt a research paradigm that aligns with their study's design.

## CONNECTING TO YOUR WORK

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Referring back to the various studies provided in this chapter, several different methodological approaches were introduced. The following questions can help you think through a future study, while drawing on the concepts that were introduced in this chapter.

- In what ways do you think that your potential research questions might be adapted to draw on a remixing of multiple approaches? How would this allow you to see different elements of your research?
- What benefits might be gained by introducing remixing multiple approaches to a study's design?
- How do the theories behind mental models and logic of inquiry lend themselves to developing your study in an online environment?