

28. Research

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Research is a nebulous term that can mean many different things to many different people. For some, research is equated with lengthy manuscripts as if the *output* of the research is the research itself. For others, research is conflated with the act of data collection and/or data analysis. In this keyword essay, I will examine how both of these definitions are incomplete in and of themselves. It is helpful, though, to first begin with a simple definition of the word *research* and then unpack and contextualize how this definition applies specifically to technical communication research. According to the *Oxford English Dictionary* (Oxford University Press, n.d.), *research* was first used as a verb in the late 16th century and derives from two morphemes (*re* + *search*). “Re” as a prefix is defined “with the general sense of ‘back’ or ‘again,’” and “search” is defined as the “examination or scrutiny for the purpose of finding a person or thing.” While there are two primary definitions of research in the *Oxford English Dictionary*, the second is most relevant to academic research and to this essay:

Research: Systematic investigation or inquiry aimed at contributing to knowledge of a theory, topic, etc., by careful consideration, observation, or study of a subject. In later use also: original critical or scientific investigation carried out under the auspices of an academic or other institution.

This definition, while only 43 words, provides much descriptive detail about research. It 1) qualifies research (*systematic*), 2) describes the act of research (*investigation or inquiry*), 3) provides motive (*aimed at contributing to knowledge of a theory*), and 4) describes the methods in which research can be accomplished (*by careful consideration, observation, or study of a subject*).

To begin, it is important to clarify the distinction between product (the tangible output of research) and process (the act of doing research). For technical communication researchers, this distinction has significant ramifications because it can reveal competing values. For instance, in institutional contexts that more closely align with the social sciences, peer-reviewed journal articles are the gold standard. On the other hand, for technical communication faculty in humanistic departments, value may be more highly placed on scholarly monographs. In addition to differences in product, technical communicators have also historically diverged on both approaches and methods to research due to the diverse research training backgrounds in which technical communicators find themselves, which include *rhetoric* and composition, communication studies, human factors, and

linguistics (St.Amant & Melonçon, 2016). Regardless of background, a shared understanding that research involves *both* process *and* product and an acknowledgment that diversity exists within both of those categories are important starting points to understanding research within the context of technical communication. This essay will contextualize research within technical communication by outlining approaches, methods, and motives for research in the field.

There have been two primary approaches to research in technical communication as outlined in Davida Charney's foundational 1996 essay, "Empiricism is Not a Four-Letter Word." In her article, she clearly delineates two major schools of thought surrounding approaches to research in technical communication. On one hand, Charney describes a group of scholars who champion subjectivist methods (largely equated with qualitative methods). Subjectivists have been historically critical of objectivist methods, particularly in their ties to "patriarchal institutions of power" (Lay, 1991), no doubt inspired by Carolyn Miller's (1979) landmark work "A Humanistic Rationale for Technical Writing." On the other hand, there is an objectivist camp of scholars who argue that empirical approaches to research are essential to *knowledge* building. Nancy Coppola and Norbert Elliot (2005) similarly draw the distinction between big *science* and bricolage. Charney (1996) concludes her essay by asserting that "over-reliance on qualitative studies and repeated disparagement of objective methods is creating a serious imbalance in studies of technical and professional writing" (p. 590). She goes on to argue that "the numerous socially-situated ethnographies and case studies, excellent though each may be, cannot by themselves sufficiently extend and refine our methods and our knowledge base" (p. 590). Though Charney's essay was published in 1996, recent scholarship in technical communication suggests that there remains an over-reliance on subjectivist methods. For example, in a 2017 study, Chris Lam and Ryan Boettger examined 117 articles over a five-year period (2012–2016) and found a vast majority using subjectivist methods. Charney's allusion to knowledge gets at the third part of the *Oxford English Dictionary* definition of research: motive. As defined, the motivation of research is to contribute to knowledge of a theory. But, as Charney argues, if there is an overreliance on a particular approach to research, a knowledge base cannot be fully realized. The debate between objectivist and subjectivist methods was/is not only about methods themselves. Like the *Oxford English Dictionary* definition, it is merely one part of what makes research *research*. What Charney and others are arguing is that, while methods are important, the qualification, action, and motive of technical communication research are equally important.

While there are two primary approaches to research in technical communication, there are also foundational methods utilized by technical communicators. Research methods garner a lot of debate, but they are merely a means to an end. They act as a tool that allows researchers to answer research questions. According to George Hayhoe and Pam Estes Brewer (2020), technical communication has relied on five major methodological traditions: quantitative, qualitative, critical

theory, literature review, and mixed methods. While this is true, it may be more helpful to understand methods within the context of technical communication by viewing methods through the lens of the data source or object of study. Most prominently, technical communicators have been interested in studying written texts. To study written texts, a variety of methodological traditions have been employed by technical communicators, including rhetorical analysis, discourse analysis, and content analysis. In her seminal work on integrating a *social justice* approach to technical communication, Natasha N. Jones (2016) further advocates for historical and archival research of texts that utilizes decolonial approaches. Also recently, innovative *visual* methods (McNely, 2013) and methods associated with big data (Graham et al., 2015) have been used to examine a variety of texts. Technical communicators have also studied people including practicing technical communicators, students, and faculty. Technical communicators have used methods including surveys, interviews, focus groups, diary studies, and participatory research to study people. Finally, technical communicators study contexts in which people interact with *technology*. Methods like card sorting, participant observation, usability, and contextual inquiry have been used to examine these interactions. As McNely et al. (2015) put it, “technical communication’s methodological and theoretical pluralism reveals the rich and diverse tapestry of opportunities for research and practice” (p. 6).

A final area that warrants discussion is debates surrounding the motive and purpose of research in technical communication. Simply put, why should we do research in the first place? What is the end goal of that research? If research is meant to contribute to a body of knowledge, what then is the role of researcher in facilitating the application of knowledge into practice? Certainly, there is much room for varying opinions, but an examination of the field’s five major journals (*Technical Communication*, *Technical Communication Quarterly*, *Journal of Technical Writing and Communication*, *Journal of Business and Technical Communication*, and *IEEE Transactions on Professional Communication*) reveals varying publication practices in regards to knowledge application. For example, *Technical Communication* and *IEEE Transactions on Professional Communication* both require a “practitioner takeaways” section in their research reports. This is a clear signal that these publication venues value applied research and are trying to explicitly draw connections between academia and industry. While much of the motivation behind technical communication research has historically centered on “pragmatic topics,” Jones et al. (2016) argue for research that is also motivated by *feminism*, race and ethnicity, community engagement, and *accessibility*, among other important areas for research. While motivations behind technical communication research are diverse, they are also often marred by the competing academic motivation of earning tenure and promotion. That is, it has also been argued that publication venues in technical communication “function as repositories for tenure and promotion materials” (Boettger & Friess, 2016, p. 322). When motivations for research become confounded by pressures to publish (i.e., the publish or perish

paradigm), researchers may find themselves at odds with an original intent to put knowledge into practice. This can be seen in the research questions we choose to pursue and research topics we choose to explore. There is wide consensus in the field that there remains a divide between academics and practitioners and that research plays a vital role in bridging that divide (Melonçon & St.Amant, 2018). That is, if researchers attempt to answer questions that are relevant to practitioners, research output would necessarily be applied in practice. However, there is no clear consensus around what these fieldwide research questions ought to be or what topics are worth pursuing. Carolyn Rude (2009) attempted to address this lack of consensus by helpfully delineating fieldwide research questions. She outlined four major areas for research including disciplinarity, *pedagogy*, practice, and social change (Rude, 2009). While these categories for research questions are clear in theory, recent research has found that there is still much misalignment between the questions academics pose and their relevance to practice. In studying the research topics of technical communicators over a 30-year period, Ryan Boettger and Erin Friess (2016) found little change over time. They argue that this, on one hand, could indicate “solidification of the core attributes of the field” (Boettger & Friess, 2016, p. 321). However, on the other hand, they argue “the amount of defined differences within our forums when compared to the size of our field could be symptomatic of the field’s identified fragmentation” (p. 321).

While it can be tempting to delineate technical communication’s diversity of approaches, methods, and motives to research as mutually exclusive and competing, examining the impact of such diversion requires more nuance. Charney herself never argued one approach at the exclusion of the other. Part of this necessary nuance around research in technical communication must focus on addressing problematic research practices within the field. Recent scholarship about research in technical communication has pointed to a lack in systematic and rigorous research, the very first qualification of research in *Oxford English Dictionary’s* definition. In an article written in 2004, Ann Blakeslee and Rachel Spilka describe the state of technical communication research (Blakeslee & Spilka, 2004). A recurring problem in technical communication research is that “research in our field is too often predetermined to fulfill theoretical models rather than being used to challenge or build onto such models” (Blakeslee & Spilka, 2004, p. 76). It is the academic equivalent of proof-texting and rarely utilizes a systematic approach to research. Blakeslee and Spilka also discuss methods and accurately describe the field’s plurality of methods as an asset, rather than a drawback. Rather than highlighting divisions between objectivist and subjectivist approaches to research, they highlight the necessity for both in advancement of knowledge. While advocating both approaches, they do point out a lack of awareness of methodological alignment to research questions. Specifically, they write, “Charney questions whether we have a good enough sense of which methods are helpful for which questions, and she proposes that we strive to do a better job, overall, of matching methods to questions” (Blakeslee & Spilka, 2004, p. 80). Lisa Melonçon and Kirk

St.Amant (2018) echo this point as they advocate for more sustainable research in technical communication that explicitly connects the dots between research questions, data collected and analyzed, and implications of the research in the reporting of research. The lack of systematic research is also discussed by S. Scott Graham (2017) when he describes much foundational knowledge in technical communication to be built upon lore, rather than systematic, empirical research. A common call for addressing this problem is a commitment to systematic and extensive training in methods, regardless of which approach researchers favor (Blakeslee & Spilka, 2004). Training in methods has also been addressed by many others in the field (Campbell, 2000; Boettger & Lam, 2013).

There is no clear answer to what research questions and topics should be emphasized in modern technical communication scholarship. But, to conclude this essay on research, it is essential to point out that a shared understanding of research, as defined in this essay, is one step in a potential path forward. That is, if the field can agree that research is 1) systematic, 2) investigative, 3) aimed at contributing to a body of knowledge, and 4) requires some method of investigation, research may be, as Melonçon and St.Amant (2018) put it, sustainable.

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