To What Extent Should Qualitative Inquiry Be Scientific? Notes From and Inspired by an Unscripted Panel Presentation

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Abstract
The components of The Qualitative Report - TQR learning community - including the journal, the conference, and the NSU qualitative research graduate certificate - provide multiple opportunities for scholars to connect and collaborate. This paper is an extension of a moderated panel presentation from TQR 2021 in which we aimed to provide an organic demonstration of how we, as members of the TQR community, aimed to learn from each other through a process of personal construction of understanding, followed by social re-construction of our understanding of the same phenomenon in response to others’ responses. To prepare for the session, five members of the TQR learning community independently developed responses to the question: “To what extent should qualitative inquiry be scientific?” Prior to the conference session, panel members and an invited moderator held periodic virtual meetings to negotiate aspects of the upcoming presentation. This paper consists of re-presented panelist and moderator reflections, comments, and responses, re-ordered to create an engaging narrative that shares commonalities and contrasts revealed through the process of reflection. We begin the multiple dialogue with excerpts which illustrate participants’ reflections to their invitations to participate, continue with excerpts to show thoughts and transitions at key points of the presentation preparation process, and ending with new questions inspired by involvement in this collaborative process.

Keywords
qualitative inquiry, science, scientific method, learning community

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To What Extent Should Qualitative Inquiry Be Scientific?
Notes From and Inspired by an Unscripted Panel Presentation

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The components of The Qualitative Report – TQR learning community – including the journal, the conference, and the NSU qualitative research graduate certificate – provide multiple opportunities for scholars to connect and collaborate. This paper is an extension of a moderated panel presentation from TQR 2021 in which we aimed to provide an organic demonstration of how we, as members of the TQR community, aimed to learn from each other through a process of personal construction of understanding, followed by social reconstruction of our understanding of the same phenomenon in response to others’ responses. To prepare for the session, five members of the TQR learning community independently developed responses to the question: “To what extent should qualitative inquiry be scientific?” Prior to the conference session, panel members and an invited moderator held periodic virtual meetings to negotiate aspects of the upcoming presentation. This paper consists of re-presented panelist and moderator reflections, comments, and responses, re-ordered to create an engaging narrative that shares commonalities and contrasts revealed through the process of reflection. We begin the multiple dialogue with excerpts which illustrate participants’ reflections to their invitations to participate, continue with excerpts to show thoughts and transitions at key points of the presentation preparation process, and ending with new questions inspired by involvement in this collaborative process.

Keywords: qualitative inquiry, science, scientific method, learning community

Introduction

Typical characteristics of a learning community include collaborative efforts, common vision, shared leadership, and an enduring environment to support these (Reichstetter, 2006). Brower and Dettinger (1998) provided two basic criteria to distinguish genuine learning communities: (1) clear identity that attracts members and defines membership, and (2) appropriate size, satisfied when a community is large enough to be inclusive and effective, but not so large that individual members feel “lost within it” (p. 10). The learning community that comprises TQR is not a classroom, school building, or institution but instead includes an academic journal, an affiliated annual conference, workshops, a weekly email newsletter, books, social media communications, and curated online resources. Additionally, the Nova Southeastern Graduate Certificate in Qualitative Research serves as an entry point to the TQR community, so clearly constitutes another component.
Our individual involvement in the community reflects our individual interest in the community’s identity, summarized appropriately by the TQR slogan: “Where the world comes to learn qualitative research.” We also evidence the right-sized nature of the community through our potential for ongoing and influential participation and engagement in the community. Collectively, the authors reflect the following current or past roles within the TQR Learning Community: TQR journal editorial board member; TQR conference presenter; author of paper published in TQR; instructor in the graduate certificate program, and student in the graduate certificate program. Additionally, within our shared identity as members of the TQR Learning Community, we reflect multiple and, at times, evolving disciplinary perspectives. The theme of the 12th TQR conference, “30 Years as a Learning Community,” provided an exceptional opportunity for scholars to share their community experiences. It also served as the inspiration for the panel presentation, which, in turn inspired this manuscript.

The purpose of this paper is not to replicate the panel presentation but instead to provide an annotated narrative in which we reflect on and report our collaborative journey undertaken to plan, develop, and present an unscripted panel discussion based on the question: “To what extent should qualitative inquiry be scientific?” Following, we present our thoughts on the question itself and share some of the reflections, transitions, and influences experienced, encountered, and considered along the way.

This paper represents an attempt to expand the boundaries of learning interactions by experimenting with a way of recording how it unfolded for us in a sometimes asynchronous, sometimes live-virtual group that included some people who knew each other well and some who did not know each other at all. For the remainder of this paper, panelist and moderator responses are shown in italic font. The excerpts which follow illustrate re-presented, rather than analyzed data. These are not distinguished by author and are ordered to contribute to narrative flow with an aim of engaging readers more so than presenting a precise record.

The idea for the panel presentation came out of a conversation between two of us during the 2020 TQR conference. During the conversation [my colleague] emphasized an emergent process and offered the specific question in an offhand way: the basic idea was to have a group of colleagues explore a scholarly topic individually, and “We could all respond to a question like ‘To what extent is qualitative inquiry scientific?’”, then have a spontaneous scholarly discussion for the panel.

While we did not all know each other, everyone on the panel knew at least one other person who was invited.

I received [a] .... Message noting that the panel would be “in the spirit of the TQR community – among people who met through the greater community (conference, journal, Nova courses) and might not know one another but for the community.” I was warmed by this idea of “the TQR community.”

[We] met as classmates in NSU’s Qualitative Research Certificate Program. We met online and then met in person a year or so later at one of the TQR conferences. I was delighted that they connected with me again to participate in this interesting panel.

[We] talked about the nature of qualitative research over lunches at conferences. I was immediately interested in the panel idea because, as
someone who doesn’t teach in an academic setting, I don’t have many opportunities to have big epistemological conversations.

From the earliest days, we had varied responses to the question: “To what extent should qualitative inquiry be scientific?”

I think this question was a loaded one where I was just waiting for an opportunity to espouse my current mindset which is that it is time to squarely start putting our pegs into the round holes that encompass what authentic and real learning and teaching are about. Perhaps because I was in the K-12 field and am currently a faculty member in the education department of my university, I have become especially sensitive to (and, if truth be told, resentful toward) those who cling to a rationalistic/quantitative approach for fostering excellence in teaching and learning.

My interpretation of the question was that it implied that “being scientific” meant being positivist, focusing on predictive inference, and emphasizing systematic quantification as a means of ascertaining what “is” or “will be.” One source of constant irritation to me in my work is the sloppy habit scientists of all kinds have of assuming that qualitative research doesn’t have these characteristics and that quantitative research invariably does. This, of course, is nonsense of the highest order. Plenty of quantitative research is conducted in ways that fail spectacularly to be systematic or to properly quantify, and many well-developed sciences – seismology, meteorology, medicine – can at best provide rough probabilities of what is or will be. And the fact that scientists widely seem to avoid having frank and ongoing discussions about what science is and what it can achieve is, I believe, one of the weaknesses that has led to a great deal of public mistrust.

I had not initially warmed to the question to which we were invited to respond: “to what extent should qualitative inquiry be scientific.” I reacted to the phrase “to what extent” and to the word “should.” As a qualitative research educator, I often ask students designing qualitative studies to revise research questions that include the phrase “to what extent” because I see it as quantitative in nature, suggesting measurement, which seems counter to a qualitative approach. I also tend to avoid “should” as a term that can convey judgment. Thus, at first, I wondered if this panel was a good fit for me. But upon further reflection, I decided this would be a good learning experience for me for the very reason that it was outside my comfort zone. And with hindsight, I wonder if I had been somewhat intimidated by this language as I don’t feel confident about the traditional “scientific” method associated with quantitative research.

I came very late to this group of scholars, collaborators, and thinkers. I was asked if I wanted to chair a panel at the upcoming TQR meeting that would be held via a remote format – Zoom. . . Initially, our task seemed clear. Scientific inquiry and qualitative research – how did this learning community define, explain, and apply these ideas?

My interpretation of the question was that we should share our thoughts about if and how qualitative research is scientific. I wasn’t thinking about the question
through the lens of the quantitative vs. qualitative debate but rather based on the definition of science as “The intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment” (Oxford University Press, 2020, Lexico.com). My interpretation of this definition is that we engage in science when we use a systematic approach to understanding a phenomenon.

We agreed to draft independent responses to the question and accepted the suggestion from one panelist to reflect on our personal history with science.

In my earliest thinking, “being scientific” meant having a systematic and reliable basis for interpretive activities that build knowledge and understanding.

My scientific life began in archaeology. Using a blend of “hard” sciences like geology, chemistry, and surveying, archaeologists analyze the physical record of past societies to develop an understanding of culture and reconstruct lost histories.

My first exposure to the word “science” came through my religious background, as I was raised in the Christian Science faith. Thus, my earliest understandings of “science” was that it was “truth” but a truth that could only be understood through spiritual interpretation.

In considering science, some of us spoke also or alternately regarding our views on evidence, design, and methodology.

[I was] a student in a recreational therapy master’s degree program . . . as a result of a conversation with my adviser, I entered doctoral studies with a strong desire to develop expertise in advanced statistical models, which I saw as the path to evidence.

Although I’ve worked in a college of computing and engineering for nearly 15 years, most of the research that I have conducted or directly supervised has been design-based research, design and development research, formative research, and qualitative research.

My education and training was (focused on) experimental design, measurement, and statistics, hypothesis testing and objectivity, the gold standard and randomness. I spent some twenty years teaching what I knew, or at least thought, to be true. And good. And right. When my thinking was challenged by questions raised by marriage and family therapists, I searched for alternatives. Voila. Finding the qualitative alternative in the early 1980s was an epiphany.

I began my scholarly career within the context of viewing all areas of inquiry through a quantitative lens. I was enrolled in a doctoral program in the School of Education called “Policy, Planning, and Evaluation” that was characterized by a very strong quantitative bent.
While we were individually reflecting on science and qualitative inquiry, an unanticipated occurrence – the COVID-19 pandemic – began to impact our lives in various ways.

I am struck by how much work and thinking occurred during the 2020 year – while we all immersed in this thing we did not know – the pandemic. I recall that on February 6 I returned from a trip to NYC. Within a few short weeks it became clear that something was amiss that would turn the world on its head.

One of these was the transition of TQR: 2021 from live to virtual.

My teaching and learning mode of choice is online and that is where I feel most comfortable. I’ve been teaching and learning online for over twenty years so the switch to [a] virtual [conference] meant that I would be doing what I know best.

This whole pandemic thing which has forced semi-Luddites such as myself to explore the strange new world of technology has now resulted in my embracing these social platforms as the greatest thing since sliced bread! It also gave me inspiration for the classes that I teach that were converted from in-class to virtual. I feel empowered with this new medium!

I welcomed the idea of an online format . . . by 2020, technology had evolved sufficiently to make the online format dynamic, interactive, and appealing.

We considered not just the technological impact but also the role of spontaneity in our panel presentation as delivered during a virtual conference.

The virtual conference announcement made me question the extent to which we really wanted to have an “unscripted” presentation.

I had decided to present my ideas in an unconventional manner with images rather than text, and I was a bit unsure how this would translate in a Zoom context.

Once we knew the conference would be virtual, we knew we couldn’t have the open debate we had originally planned. It’s just really hard to have a normal, free-flowing conversation on Zoom, and we wouldn’t be able to involve the audience in the ways you can in person.

One well-received recommendation was to refine our general guidance to reflect on our individual histories with science by considering, in order, one’s past, present, and evolving perspective about the question. We felt having consistent order to the content might improve integration of our responses and provide the moderator clear points to key in on for discussion during the presentation without limiting panelists preferences for how they approached the questions.

My first notes started out with self-as-the-researcher. . . I started out by describing my relationship and experience with research and research methods.
I made notes about [a] recommendation to organize my response chronologically, beginning with what I used to think. But I did not write that way and ended reorganizing my response to fit into the recommended structure.

I had fun selecting just a handful of images that conveyed my own journey, from childhood, through my college years, and as a working researcher and educator.

I started out with a very theoretical, philosophical set of notes.

A commonality among most panelists was the process of thinking deeply about our history with qualitative inquiry.

Drawing on the fonts of wisdom courtesy of time and tide, I think that my reason for thinking that qualitative inquiry was second-rate can perhaps be summed up in one phrase “lack of rigor and precision.”

When I was new to qualitative research, I thought of it as a soft science.

My general view was that qualitative inquiry was something more like therapy and not a serious method for knowledge production.

As a graduate student, I was invited to join a qualitative research project led by two faculty members. We employed a group analysis process of biographical narrative research . . . I found the process thrilling and the findings profound, and officially fell in love with qualitative inquiry!

Some of us identified a shift in our thinking.

...As time passed, my reflections turned from the philosophical to the personal.

At some point, I shifted my focus from getting evidence to improving my understanding.

...As I began to try and write per the headings of past, present, and future perspectives regarding the question regarding how scientific and qualitative fit or should fit together, I changed it in midstream. While I could capture my past Quant culture, I realized that my present and future conceptions coalesce into an “evolving” category.

I rewrote everything to be tied to the science work I was doing at the time. It was amazing how very little theory was left after that process.

The past-present-future structured described previously also included a recommendation that panelists would identify and describe the role of favorite or influential theorists.

My exposure to the work of Albert Bandura marked the beginning of my realization of the importance of individually perceived realities. Reading Bandura (1986) led me to question things like evidence, proof, and truth...
I found myself first turning to a text called Against the Current: Essays in the History of Ideas, by Isaiah Berlin, first published in 1979, though I had a 2001 edition. Berlin’s essays explore the origins of the scientific method and positivism in the Enlightenment, as well as tracing opposing, “anti-rationalist” views across the past few centuries that emphasized contradiction and complexity and the importance of direct experience and insight in gaining knowledge.

I encountered the work of Roman Ingarden (1972/1979), a philosopher who adopted a nuanced construction of “existing” and clarified the notion of dependence. He described three types of ontology (formal, material, and existential) and posits four modes of being: absolute (divine), real (the concrete world), ideal (the realm of numbers), and purely intentional (the realm of art or fiction). Ingarden embraces the idea of dependence in existential moments. In simplest terms, Ingarden provides a construction within which “either/or” can coexist with “both/and,” thus opening the door to a rich analysis of the world.

Cooper and Garner (2012) wrote a terrific book entitled, Developing a Learning Classroom: Moving Beyond Management Through Relationships, Relevance, and Rigor. The terms as well as their sequence are important: Relationships precedes Relevance, which precedes Rigor. Our learning as humans cannot be short-circuited by immediately demanding rigor without first trying to make connections with learners via relationships and relevance.

King and colleagues stated, “By definition, inference is an imperfect process. Its goal is to use quantitative or qualitative data to learn about the world that produce them. Reaching perfectly certain conclusions from uncertain data is obviously impossible” (1994, p. 9).

Bruce Lee wrote: “Knowledge is fixed in time where knowing is continual. Knowing is a movement” (1975, p. 16).

As the process of preparing for the panel kept moving forward, we individually came up with some summative thoughts.

In our pursuit to do good qualitative research, we must never lose sight of our interests in qualitative inquiry. We can still practice disciplined thought while at the same time think outside the box and be creative and innovative in our approaches.

Ultimately, I am coming to believe that the fundamental tenets of qualitative methodology are more resistant to systematized bias than I initially feared. These tenets include centering individual and community experience, protecting and lifting up the research participant’s authentic voice, and confronting and reflecting on one’s own biases.

...Being scientific is not a matter of choosing qualitative vs. quantitative or systematic vs. selective. It is a matter of understanding all the tools in the
toolbox and knowing when to use each one, in sequence or in combination, to build knowledge.

I believe general science wants to confidently predict and explain, so avoids nuance, ambiguity, and uncertainty. By focusing more on understanding, challenges to predictive ability and explanatory power are less applicable in qualitative inquiry.

Maybe part of our conundrum is how science has come to be defined by those of us in education and the social sciences.

What’s important in any type of science is the rigor that undergirds it. That is, the things we do to improve reliability, validity, certainty, and honesty of our conclusions.

If we are interested in learning about humans, we need to understand that most of what we need to know cannot be discovered “scientifically.” If we want to really find out what makes us tick – try novels, plays, poems, music, and film instead.

Throughout 2020, the pandemic year, we heard repeatedly such phrases as “listen to the science” or “we are conducting controlled, experimental studies” or “the numbers show...”. I recall listening to the daily news reports about the pandemic. We were either given the numbers of people who had died or contracted the virus that day or we were presented with a story about one person who had died who was not able to see her family. Both types of information are meaningful and poignant. I heard the underlying message that what would persuade people was based on numbers and data – quantitative to the core.

Defining or explaining what “scientific” and “qualitative” became more elusive. I came to realize we were on a journey together. And I also came to accept we might not get to the end – and that was okay.

And we were left with additional questions.

After considering definitions of science from multiple sources, I believe that qualitative inquiry might be scientific, or rather, is not necessarily not scientific, so, to return to the initial question: should it be?

On reflection, I would have liked to hear voices from others on our panel. We were all White, all highly educated, all connected to TQR in some way. Where were people of color? Where were people trained outside the US? Where were consumers of our research? Where were academics outside of our domain?

I think we can arrive at “findings” through qualitative inquiry. Those findings reflect the “evidence” found in the qualitative data we collect and also depend upon our interpretation of that data through our analysis. Does that make qualitative research scientific?
I find myself grappling almost daily to account for whether the tools and methods I use were, in fact, constructed by professional elites precisely to shut out people of different racial or ethnic backgrounds, ages, gender identities, cultures, value systems, political mindsets. In what ways might these methods systematically marginalize people in the name of being scientific?

Our decision to write this article to follow and expand on our panel presentation was prompted by discussion with the audience in attendance at the 2021 virtual TQR conference. During that discussion, panelists and audience members alike noted three things: there is great value in interaction that occurs while learning from each other; there are profound challenges achieving interaction when people cannot be together; opportunities to engage in discussion of big philosophical questions arise far less often than many of us might like. For us as authors, the TQR learning community serves multiple roles: it is a source of information and resources; a gateway for networking; a place to share our works with others; a safe place where thoughtful, intellectual debate is encouraged and valued.

There was no conclusion or clear consensus view which resulted from our lengthy conversation about the nature of science and scientific approaches to knowledge production. We do not see this as a negative but rather evidence of the critical value of ongoing, open-minded dialogue in which we listen to and incorporate knowledge, when we agree with others, appreciation of difference when we do not, and increase our understanding and empathy through every exchange.

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