Teaching with Shared Data for Learning Qualitative Data Analysis: A Multi-Sited Case Study of Instructor and Student Experiences

Darcy E. Furlong[1], Anna Romero[1], Kirstin Helström[1], Jessica Nina Lester[1], and [2]Sebastian Karcher

[1]Counseling & Educational Psychology, Indiana University, Bloomington, Indiana, USA

[2]Syracuse University, Syracuse, NY, USA

Corresponding Author: Jessica Nina Lester
Email: jnlester@iu.edu

Bio Notes:

Darcy E. Furlong (she/her) is a doctoral candidate at Indiana University, Bloomington in the Qualitative & Quantitative Research Methodology program (Qualitative Track). She studies qualitative research methodology and critical disability studies. In her applied work, she draws upon discursive methods and disability justice frameworks to study communication practices across education and clinical settings.

Anna C. Romero (she/her) is a Ph.D. student in the College of Education at Indiana University, in the Qualitative and Quantitative Research methodology program. With a focus on qualitative methodologies, she is an interdisciplinary scholar that engages with arts-based methodologies that work with and beyond traditional written discourses. In her methodological work, she concentrates on exploring epistemological constructions that go beyond human perspectives, investigating validity processes that extend beyond reason. Her research centers on the understanding of how engaging with epistemological foundations beyond reason and beyond human can promote environmental justice and interconnected ecological well-being.

Kirstin Helström is a Research Affiliate at Indiana University Bloomington and a research contractor for entrepreneurs across a variety of educational interests. Her primary interests include academic organizational cultures, policy analysis, and post-secondary and graduate composition education. She also freelances as a writing trainer and editor for academic and industry professionals.

Jessica Nina Lester, Ph.D., is a professor of Qualitative Methodology in the School of Education at Indiana University, Bloomington. Having been trained in cultural studies and qualitative research methodology, she takes an interdisciplinary approach to her scholarship, including both the methodological and substantive foci of her research program. In her methodological work, Lester focuses on the study of language-based methods, digital tools in qualitative research, and disability in qualitative inquiry. Her substantive research has focused on examining interactional practices in clinical and educational contexts that involve children and youth. She is the co-author of 7 books and co-editor of 8 volumes. In addition, she has published over 90 peer-reviewed journal articles and co-edited 14 special journal issues. Lester has received numerous awards for her scholarship, among them the 2018 APA Distinguished Early Career Contributions in Qualitative Inquiry Award and the 2022 American Educational

Studies Association Critics' Choice Book Award. At Indiana University, Lester teaches qualitative methods courses and was recently recognized by the 2022 Gorman Distinguished Teaching Award.
Sebastian Karcher is the Associate Director of the Qualitative Data Repository and Research Assistant Professor of Political Science at Syracuse University. His main interests are in research transparency, management and curation of qualitative data, and the integration of technology into scholarly workflows. He is an active contributor to several scholarly open-source projects, including Zotero and the Citation Style Language, and has taught widely on digital technology and data management. Sebastian's work has been published widely in journals spanning the social sciences, information science, and medicine. His work has been supported by the National Science Foundation (NSF), the Institute for Museum and Library Services (IMLS), the Mellon Foundation, and the Sloan Foundation.

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Data availability statement

The data that support the findings of this study are openly available in the Qualitative Data Repository at https://doi.org /10.5064/F6XZV8BZ

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In this paper, we report findings from a multiple case study that examined how instructors used shared data when teaching qualitative data analysis. More specifically, we explored both instructor and student experiences at two graduate-level qualitative methods courses located at U.S. universities. Drawing upon thematic analysis and the theory of active learning, we identified two themes that centred the faciliatory role of shared data for teaching data analysis in an active way (i.e., doing qualitative data analysis). Both participating students and instructors identified shared data – conceptualized as both a noun and a verb (i.e., a thing and an action) – as contributing to learning how to do qualitative data analysis. Although conceptualizations of shared data varied, overarching considerations tended to emphasize this use of shared data as beneficial to the general pedagogical structure of qualitative methods courses by contributing to shared vulnerability and engendering supportive peer learning environments. We highlight how these finding offer important implications for using shared data more systematically when teaching qualitative data analysis in methods courses.

Keywords: active learning, archived data, qualitative data analysis, shared data, teaching qualitative methods

Introduction

Across the social sciences, graduate education programs regularly identify research methods as a core pedagogical goal (Hubbell 1994; Somekh and Lewin 2005). Given the difficulty of introducing students to new-to-them practices (Ball and Pelco 2006), the scholarship on teaching research methods is growing. Notably, a proliferation of this literature attends to quantitative research methods, such as how to use computational statistical approaches; however, the scholarship on teaching and learning qualitative research methods remains comparatively limited (Wagner et al. 2019). The literature on quantitative methods instruction consistently demonstrates that teaching with data has a positive impact on instruction (Garfield and Ben-Zvi 2007; Howery and Rodriguez 2006), and this data generally consists of "shared data". Notably, in this paper, we

define shared data as data that others have collected and/or archived, such as data obtained through online archives or anonymized data collected by educators for instructional demonstrations (Plale et al. 2019).

An increasing number of scholars have called for qualitative researchers to engage more fully with open science practices, which includes archiving and more broadly sharing de-identified qualitative data (Karcher et al. 2021; Campbell et al. 2023). Instead of using shared (i.e., secondary) data similar to what typically occurs in many quantitative methods courses, qualitative instructors often organize learning activities around data that students have generated themselves (Onwuegbuzie et al. 2012). Collecting qualitative data develops necessary skills, but may consume too much time, be of lesser quality, and leave less class time to teach other aspects related to qualitative research, including qualitative data analysis (Haaker and Morgan-Brett 2017). Researchers have found that integrating high-quality shared datasets into qualitative methods courses provides students with the opportunity to "learn by doing data analysis without facing the enormous and ethically challenging task of collecting data in the field within the limited period typically allowed by teaching modules" (Haaker and Morgan-Brett 2017, np). This is critical given researchers have long highlighted the benefits of learning by doing (Anzai and Simon 1979), particularly in the social science research methods (Kilburn et al. 2014). Therefore, such limited evidence regarding how qualitative instructors do or do not engage with shared data when teaching qualitative data analysis (i.e., the process of interpreting and transforming raw data into findings, see Miles et al. 2014, for more details on the varied meanings of qualitative data analysis) and seeking to promote active learning points to a notable gap in pedagogical knowledge, instructional practice, and potentially a missed learning opportunity.

In this multiple case study, we aimed to understand how graduate-level students are taught qualitative data analysis in introductory and advanced qualitative methods courses, with or without shared data. A central goal for this study was to examine how definitions, conceptualizations, and uses of shared data guided the pedagogical structure of two qualitative research methods courses, specifically at the stage of introducing qualitative data analysis (e.g., thematic analysis). More particularly, the research questions guiding this project were: (1) How is shared data used or not used when teaching qualitative data analysis, and (2) How do instructors and students describe their experiences of using shared data when teaching and learning about qualitative data analysis?

Relevant Literature

A systematic review of methods literature published between 1997 and 2007 found a lack of "pedagogical culture" in teaching social science research methods, particularly when compared to quantitative research traditions (Wagner et al. 2011, p. 75; Wagner et al. 2010). Here, Wagner and colleagues found that this literature was narrowly focused on unique disciplinary and methodological practices, with very little guidance provided for current and/or future methods instructors. Additionally, they argued for the gold or "highest standard" of pedagogical practice, which included sharing ideas and engaging in debate across types of qualitative methods instruction (Wagner et al. 2011, p. 86; see Wagner et al. 2019 for an updated review). Responding to these claims, Kilburn and colleagues (2014) thematically synthesized the contemporary literature about pedagogical approaches for teaching and learning social research methods, highlighting three primary approaches: (1) making research visible, (2) learning by doing, and (3) reflecting on the research process. More broadly, the research methods-teaching nexus (see Colbeck 1998) has been found to include topics ranging from qualitative

instruction across disciplines (Hurworth 2008) to teaching in ways that promote and value difference (Roulston 2019). Others have investigated the relationship between qualitative instruction, apprenticeship models, and collaborative learning (Hernández-Hernández and Sancho-Gil 2015); a "Big Tent" perspective (Roulston and Bhattacharya 2018); and post-humanist, feminist, and materialist perspectives (Ulmer et al. 2020).

As Kilburn and colleagues (2014) noted, learning by doing (i.e., active learning) has been identified in the social research methods literature as a relevant and readily useable pedagogical approach. Significantly, using shared data to teach data analysis is one form of active learning that has a long and well-respected history in the quantitative methods literature (Heafner et al. 2016; Smith 2008), including at the undergraduate level (Ball et al. 2022). Scholars have indeed suggested that active learning approaches are also beneficial in teaching qualitative methods (Corti and Bishop 2005; Paretti et al. 2023); yet, to date, less research has described *how* qualitative methods instructors might teach methods with or without the use of shared data, or how students may experience learning about qualitative research methods with or without the use of shared data. Nonetheless, it has been argued that the addition of any data to aid in teaching qualitative methods adds "interest and relevance to courses" (Corti and Bishop 2005, 2). Some scholars have suggested that following an active learning approach by teaching with shared data engages students, while also allowing them to focus more fully on the methods being taught (Karcher et al., 2021; Elman et al. 2015). Additionally, analysis of the use of qualitative data repositories highlights that most secondary use of qualitative data is in fact for teaching and learning purposes (Bishop and Kuula-Luumi 2017).

Still, the literature does point to some exemplars demonstrating how instructors and researchers integrate shared data to actively teach qualitative methods at the undergraduate and graduate level. For example, Huehls (2005) used a simulation

exercise to teach grounded theory in a qualitative research course. Here, students were presented with data collected by the instructor from the Library of Congress, using this data to practice a grounded theory approach. More recently, Peyrefitte and Lazar (2017) described how shared data can facilitate teaching qualitative research methods to novice students by offering an alternative, active learning, an approach that does not require the completion of a "mini" research project (e.g., collecting individualized data prior to analysing the data). Describing ways to develop pedagogies with simulation, Nind and Lewthwaite (2018) also pointed to the potential that video recordings hold for "involving teachers and researchers in observational reflection on pedagogic processes" (p. 401). Highlighting this point a decade prior, Saldaña (2008) noted the value of integrating popular film to teach concepts related to qualitative research (i.e., epistemology, data analysis, etc.). Similarly, Chanail (2011) outlined the pedagogical and methodological possibilities of using already existing YouTube video data to teach qualitative research methods.

As these examples illustrate, integrating shared data into the qualitative methods classroom involves students in an active learning style, which is a longstanding and effective pedagogical practice in social research methods (Kilburn et al. 2014). Yet, the literature has also offered some cautions for methods instructors using shared data. One practical challenge impacting researchers, instructors, and students working with shared data can be the missing research context (Karcher et al. 2021). Drawing upon a previous study by Corti and Bishop (2005), Bishop (2012) offered three strategies to address missing context: utilize only limited portions of the dataset, curate detailed contextual descriptive materials, and integrate supplementary resources for instructors into archival documents. However, even if datasets provide abundant research context, researchers may still face unique ethical considerations, including those related to consent, privacy,

and anonymity (Karcher et al. 2021). Bishop (2012) noted the importance of ensuring participants are truly informed when they consent to a project. In other words, instructors should only provide students with shared data whose participants consented to the archiving of their contributions (see Bishop, 2012). While archiving quantitative data commonly occurs, and in some cases is even mandated by open access and data sharing policies (Bishop and Kuula-Luumi 2017), archiving qualitative data occurs less often. As a result of these ethical issues, and other legal concerns (e.g., copyright laws), the availability of what one could describe as open access qualitative "pedagogical data" currently remains somewhat limited (Elman et al. 2015, p. 41), however these types of datasets are growing (e.g., Qualitative Data Repository at Syracuse University, UK Data Archive).

While the opportunity exists to teach qualitative research methods using shared data, little to no research points to *how* instructors use shared data when teaching research methods. As a result, limited literature has explored the pedagogical efficacy of integrating shared data into the qualitative research methods classroom (although assessments in particular cases are optimistic; see for instance, Bishop 2012). In short, the potential for using shared data to enhance the instruction of qualitative methods, and particularly qualitative data analysis, remains largely unexplored.

Theoretical Perspective

As noted, some of the existing literature on teaching social research methods has highlighted the utility of active learning techniques (e.g., Reinschmidt et al. 2018). Specifically, active learning entails "instructional activities involving students in doing things and thinking about what they are doing" (Bonwell and Eison 1991, p. 2). This approach to learning is one that has been found to afford opportunities for "higher order thinking (analysis, synthesis, evaluation)" (Bonwell and Eison 1991, p. 19). Learning

sciences scholars and education theorists have considered active learning an effective pedagogical technique to facilitate skills acquisition and generate student interest (Rehak et al. 2017; National Research Council 2000). Moreover, researchers consistently highlight that leveraging active learning to teach qualitative research methods yields clear benefits (e.g., Lundahl 2008; Reinschmidt et al. 2018; Robyns 2001; Saeed and Al Qunayeer 2021; Wiley and Voss 1999). Recognizing the established value of taking up an active learning approach to teaching social research methods (e.g., Kilburn et al., 2014), we drew upon an active learning perspective to inform our interpretation of the data and ground our understanding of the potential ways that shared data might serve to enhance learning outcomes. The theories that undergird an active learning perspective include constructivism (Piaget 1970) and social constructivism (Vygotsky 1978). While a thorough review of these two theories of learning is outside the scope of this paper, these theories broadly support pedagogical efforts that emphasise active learning processes aimed at supporting deeper and enhanced learning outcomes (e.g., Freeman et al. 2014). As such, given our study focused on how shared data – arguably an active learning technique – may or may not be used to teach qualitative data analysis, we also sought to contribute to the social methods literature that has highlighted the pedagogical value of learning by doing (i.e., active learning).

Methods

After acquiring approval from our institutional review board, we used a multiple case study qualitative research design, henceforth referred to as multi-case study (Baxter and Jack 2008; Yin 2009). This approach draws upon case study methods to systemize observation, study the phenomenon of interest in its naturally occurring context at limited research sites, and use qualitative, quantitative, and/or mixed methods research methods to collect data. Our units of analysis included both *teaching and learning*

qualitative data analysis, with a particular focus on the perceptions of the participating instructors and students about data analysis instruction with or without the use of shared data. We analysed data across both participants and research sites (Site A and Site B) to derive themes that pointed to multiple perspectives on the same phenomenon of interest. Our collected data and research protocols were deposited in the Qualitative Data Repository (ANONYMIZED CITATION TO OPEN ACCESS STUDY DATA AND PROTOCOLS). While we collected both audio and video recordings of interview data and some observational/classroom data, we were only able to deposit transcribed interviews and data artifacts per our ethics board requirements.

The research team included three doctoral students (Authors 1, 2, and 3) and two faculty members (Authors 4 and 5) located at two different U.S. higher education institutions. The three doctoral student authors (Authors 1, 2, and 3) had previously been enrolled in qualitative methods courses, and both faculty member authors (Authors 4 and 5) have regularly taught qualitative methods courses and delivered workshops/seminars in interdisciplinary contexts. One of the authors (Author 4) is a leader in qualitative data repositories and oversees a major data repository located in the United States. All of the authors assumed that teaching qualitative data analysis with shared data *may* positively enhance students' learning experiences; yet they remained uncertain whether and how instructors and students might orient to and make sense of the use of shared data.

Site Descriptions

This study investigated participant experiences at two graduate-level qualitative methods courses taught at US universities within Schools of Education. Site A's university had a "Research 1" classification. Its graduate-level qualitative methods course (pseudonym "Advanced Qualitative 3") required two prerequisite qualitative

methodology courses. This course could be completed by students enrolled in the qualitative methodology Ph.D. program or students enrolled in other graduate level programs across the university. During this study, the course was taught using a 16-week term and had 15 students enrolled for the Fall 2021 semester. Class observations and participant interviews occurred during the three weeks surrounding class sessions focused on data analysis. Site B was located at a university associated with a 'Research 1' classification in a different region of the United States. Site B's graduate-level qualitative methods course (pseudonym "Introduction to Qualitative Research") had no prerequisite courses and was regularly taken by students enrolled in a methodology Ph.D. program or students from other graduate level programs across the university. The course was taught using a 13-week term and had 22 students enrolled for the Spring 2022 semester. Class observations and participant interviews occurred in the weeks surrounding class sessions focused on data analysis, spanning two weeks. While both research sites and participating instructors were located within graduate-level methodology programs that prioritized and valued qualitative methods, we recognized that they co-existed within a political landscape where the qualitative paradigm is not always viewed comparably to other paradigms (Lexter and O'Reilly 2015; St. Pierre 2006). Nonetheless, both participating instructors described their universities as offering multiple qualitative methods courses that were all in high demand.

Participant Descriptions

Site A's instructor reported a total of 19 years teaching in higher education, with six of those years at her[1] current institution teaching qualitative methodology courses, including the one observed for this study. Due to the advanced nature of the observed

[1]She/her pronouns are used for instructor-participants because the research team was able to verify this information. Student-participants were not asked their pronouns in this research project; thus, gender neutral language (they/them) has been used.

course, Advanced Qualitative 3, Instructor A highlighted her familiarity with her students, having taught all but one in prior courses. Site A's course contained 15 full time students who enrolled in face-to-face courses. The class included 13 domestic students and two international students. Given their status as doctoral students, all 15 had completed prerequisite qualitative methodology coursework (e.g., Qualitative 1, Qualitative 2). Students represented multiple disciplinary programs, including Juvenile/Criminal Justice, Special Education, Counsellor Education, and Qualitative Research, to name only a few. Of those enrolled in the course at Site A, only one student, Nikki[2], agreed to participate in an interview.

Site B's instructor reported a total of 14 years teaching in higher education, with all of those years at her current institution. She reported a total of 14 years teaching introductory and graduate qualitative methodology courses, such as the course observed in this study. Site B's course contained 22 full time student who enrolled in face-to-face courses. The class included 13 domestic students and 9 international students. All students were enrolled in graduate programs, with one student in a master's program, 18 in Ph.D. programs, and 3 in Ed.D. programs. Given the introductory nature of this course, most of the students had no prior training in qualitative research. Students represented multiple disciplinary programs, including special education, curriculum and instruction, and higher education, to name only a few. At Site B, four students, Maria, Sammy, Jonny, and Wei, agreed to participate in an interview.

Data Collection

Site A data sources included three live classroom sessions recorded via Zoom and shared with the research team over the course of a three-week period. Each session included teacher-led discussions and group conversations about data analysis. On

[2]Pseudonyms are used throughout.

average, class sessions lasted two hours and 25 minutes, ranging from 2 hours and 15 minutes to 2 hours and 36 minutes. The instructor shared two PowerPoint presentations as part of the weeks around teaching and learning qualitative data analysis. Instructor interviews for site A included a preliminary interview, lasting 60 minutes, and a post class session interview, lasting 58 minutes. These interviews discussed the nature of the class session in its relation to teaching qualitative data analysis and student engagement. At Site A, one student interview occurred upon the completion of the course and lasted approximately 35 minutes via Zoom.

Site B data sources included one live classroom observation (and subsequent recording) using a researcher-monitored video recording device within the classroom. The research team placed the camera in the classroom during the relevant portion of class and retrieved it once the class session ended. Most of this classroom session consisted of instructor-led lecture with some student feedback. Due to a lack of student consent (one student declined to have the activity recorded), the in-class activity related to data analysis was not recorded. As such, the recorded classroom session lasted only 36 minutes in total. Artifacts from Site B included a PowerPoint presentation explaining data analysis methods, a coding exercise that included a source of data from the instructor's own research, an empirical article, and a piece of secondary data retrieved from a book chapter. Instructor interviews for Site B included a preliminary interview, lasting 54 minutes, and a post class session interview, lasting 44 minutes. In addition to general questions about teaching qualitative analysis, these interviews discussed the nature of the class session related to research methods pedagogy and student engagement. At Site B, four student interviews took place via Zoom after the classroom observations, and lasted 22 minutes on average (ranging from 14-30 minutes). Similar to the student-interview from Site A, students reflected on their perceptions of how

qualitative data analysis was taught.

Data Analysis

To analyse the data, we drew upon Braun and Clarke's (2006, 2021) approach to thematic analysis, taking an iterative and inductive approach (Miles et al. 2014). Boyatzis (1998) presented thematic analysis as a tool to use alongside other methods and methodological approaches, such as in this multi-case study methodology. As a tool or method, thematic analysis offers a flexible structure to identify, analyse, and report patterns (or themes) across data, while also aiding in the interpretation of the research phenomenon of focus (Boyatzis, 1998; Braun and Clark 2006). Braun and Clarke (2006) described a theme as capturing "…something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (p. 82). To identify themes, we iteratively worked through Braun and Clarke's (2006) six stage process. First, we familiarized ourselves with the data (i.e., interviews, observations) with the support of qualitative data analysis software, specifically MAXQDA (2022). After generating a set of open codes from our initial review of the data, we distributed the data amongst the research team. We took an inductive approach to coding where we went "…back and forward between the entire data set, the coded extracts of data…and the analysis of the data" (Braun & Clark, 2006, 86). Next, we searched, named, and reviewed themes individually and as a team, while considering potential links (or not) to our theoretical perspective. To ensure quality, we turned to Braun and Clark's (2021) twenty guiding questions, such as how to deal with coherency across the process. Additionally, we used member-checks with participants (instructors and students) by providing an opportunity to offer feedback on initial interpretations of the analysis. In addition to both instructors, two student-participants responded to the email inviting them to offer feedback. While no one raised

disagreements or contentions about the findings, participants offered affirmations and additional details about their experiences.

Findings

With the understanding that researchers play an active and creative role in the generation of themes (Braun and Clarke 2006, 2021), we identified two themes across the dataset. The first theme, *Learning Qualitative Data Analysis Requires Doing Qualitative Data Analysis,* explores the nuances and practicalities of engaging students in active approaches to learning. The second theme, *Interacting with Shared Data: Noun versus Verb*, details the specifics of how shared data facilitates and hinders active learning. Split into two subthemes, *benefits* and *challenges* of using shared data, Table 1 offers a visual of some of the major points we explore in the discussion of the findings below.

Table 1. Thematic findings overview.

Theme 1	**Theme 2**	
Learning Qualitative Data Analysis Requires Doing Qualitative Data Analysis	Interacting with Shared Data: Noun versus Verb	
	Subthemes	
	Benefits: sharing vulnerability, focus on process, collaborative engagement	**Challenges:** contextual information, personal investment

Theme I: Learning Qualitative Data Analysis Requires Doing Qualitative Data Analysis

Across the dataset, the participating instructors and students spoke of the importance of actually *doing* or practicing qualitative data analysis to learn and understand it, therefore aligning with an active learning perspective (Bonwell and Eison, 1991). Course syllabi included learning data analysis as one of the core goals for both instructors. Site A's

instructor noted learning data analysis was a course objective for students to "understand qualitative interviewing designs and approaches to qualitative interview transcription and data analysis." Similarly, Site B's instructor listed "document analysis" as part of one of the three goals for the course.

During interviews, participating instructors and students emphasized the value of working directly with data, expressing a preference for not simply talking about how to carry out analysis but rather doing it collectively in some way. This emphasis on *doing* analysis was also evidenced in the observational/classroom data, artifacts, and interview data. Both instructors centred their data analysis lessons on practicing with actual data and spoke about how you cannot simply *tell* students how to analyse data, but rather must *show* them through active engagement.

Yet, due to a range of pedagogical and practical reasons, the instructors approached teaching data analysis in different ways. For instance, due to the advanced nature of the course, students at Site A entered the semester with their own archive or collection of qualitative data. Site A's students were "guaranteed to have data because they will have done interviews, focus groups, ethnography, etcetera, like over the course of Qual 1, Qual 2, that sequence at a minimum" (Interview, Instructor A). As a result, Site A's instructor recognized that students generally expected to work with their own data to support thesis or dissertation research. With the assumption that students arrived with moderate to advanced understandings of qualitative research and data analysis skills, students worked collaboratively in data analysis groups at Site A; therefore, the instructor spent less time on formal lecturing. In doing so, the data analysis portions of the course focused predominantly on *doing* the analysis co-actively with one another, rather than talking about how analysis might theoretically unfold. More particularly, students at Site A worked in small-groups with their own data prior to coming together

for a large-group discussion debrief. For example, students practiced sharing, talking about, and analyzing their own data with peers during in-class activities. Preceding any group work, however, the instructor offered guiding instruction to "talk together, consider, think through, discuss, and share different ways that you might approach analysing this data that are outside of what this person initially conceptualized, planned, or was forced to do..." (Instructor A, Class observation).

While Instructor A did not provide a shared dataset to her students, she did speak about typically doing so when teaching more introductory qualitative methods courses. In fact, she often described providing students with segments of data from one of her own qualitative datasets and inviting students to work together to code the data. She noted that "getting them [students] to understand that coding is something that they must do – that there isn't a right way to do it" was challenging. She explained that one of the ways she went about teaching "qualitative coding "was by "modelling" how to code using her own dataset or a student's dataset:

> I do a good bit of modelling for them. I take them through different ways that I do coding. And I'm always like, I'm emphatic, like these are ways like these are not it is not the way, I am not the way, the truth, the light. This is a way. And then one of the things that I show them like my old school way, which some people really like to like print things out and highlight them or mark them. I don't do that because it's a really big waste of paper, but I model that for them because that resonates with some of them. I show them.

While Instructor A emphasized the importance of "modelling," she also noted that "modelling" the analysis process alone was insufficient. Alongside "modelling," Instructor A asked students to collect their own "nontraditional interview" data (e.g., go-along interviews, arts-based interviews, etc.) and then analyse it. She described:

> And so once they've collected data in an unconventional way, we start getting them like, okay, "we've talked about coding, we've talked about like, here's different ways that one can code. Now that you've done this interview in a less conventional way, what are ways that you can come at this data less conventionally as well?" And so we'll do things like found poetry, narrative analysis, things like that.

In this way, Instructor A emphasized *doing* analysis as central to learning it. Nikki, the sole student from Site A who participated in an interview, spoke to the value of "doing" the very thing being taught. They noted:

> But their biggest thing with the, with teaching us about analysis is one, they have us do things like we're doing field work or we're doing some sort of an interview, or we're doing like with each of the classes, they'd have us out doing things and then kind of guiding us through.

Describing the experience of bringing qualitative data from previous courses, this student articulated that doing analysis together – that is, with other students – was particularly generative. The participant emphasized that working with data within a small group led to new questions and understandings; specifically, they said that working directly with data allowed them to, "kind of bounce…ideas off each other and consider data in this [new] way."

Like the instruction provided at Site A, Instructor B spoke about the importance of inviting students to analyse *real* data. Unlike the students nearing completion of their graduate studies at Site A, fewer students at Site B arrived with collections of their own qualitative data. As such, the structure of Site B's course tended to follow a more traditional pedagogy that used PowerPoint lectures to overview key introductory concepts related to qualitative methodology. For example, with a general focus on teaching thematic analysis – specifically citing Braun and Clarke (2006) – Instructor B emphasized "open coding" where, "the theme should be about what did you actually hear the person say, not what was your interest when you went in and what you asked about". The instructor emphasized a data-driven (i.e., emic coding) approach to coding, evidenced in the lecture and activities about qualitative data analysis. Importantly, the instructor at Site B provided shared data to the students when using in-class activities. Describing this teaching approach, Instructor B noted:

> I've also used my own interviews, especially if it's an interview I really like. I think, Wow, this'll be cool to show them this. And then maybe have them do that in class. Just

> sit there and individually and then in small groups, look at maybe just with two pages of it… I remember bringing in an interview which was an interview I did with a caregiver who I found very inspiring…I brought in two pages.

We saw this approach unfold in our observations of the classroom lessons on data analysis. After overviewing general types of qualitative data analysis and methods (i.e., coding), students worked in small-groups to practice creating (1) emergent or open codes ("brief summary or label for topic or idea expressed"), (2) memos or reflective codes ("your ideas, questions and insights about what [participant] means"), and (3) pre-set codes ("concepts you plan ahead of time in relation to a theory or interest") (Site B, artifacts). Instructor B described what unfolded in this activity as involving the following:

> They got into small groups, they sort of looked at it individually first, then got together and compared their, those little cold summaries that they had come up with. So that was what we did as a practice. They had the PowerPoint on the different types [of analysis]. And then I think the next week they brought in their interviews and then kind of bounced feedback on it.

The students who participated in this activity consistently reported finding it useful to their learning, as it meant not just reading about how to do data analysis but rather doing it with guidance and/or with their peers. Sammy, a student at Site B with a "science background" shared that this activity was their very first experience qualitatively "coding" and "being exposed to someone's personal lived experiences and being able to read an interview done like that was helpful in my own work. Similarly, Maria, a student at Site B in Instructional Systems and Technology, noted that:

> [O]ne of the things I really liked about Instructor B's class was that they gave us opportunities to practice in class. So when it came to like coding data, they'd give us data and say, 'Okay, get into groups and we'll code this and then we'll talk about your process.'

Maria went on to share that beyond the activities where they learned to analyse data with a shared dataset (elaborated in Instructor B's interview data), they also found

collecting and analyzing their own data useful. Like Site A, Site B's Instructor required her students to generate their own data. In doing so, Maria noted:

> So we did our own participant observation and we did our own interview assignment and we had to code and do all those different things. And it was helpful to be able to do it in like a small chunk in class where we can ask questions and then try it on our own in like a more robust way.

Notably, all of the participating students highlighted the value of engaging in *activities* to learn how to *do* analysis, with one student aptly describing this approach as feeling similar to a "lab"(Jonny, student at Site B).

Theme 2: Interacting with Shared Data: Noun and Verb

As mentioned previously, this study conceptualized "shared data" as data generated, collected, or archived by others, such as data obtained through online archives or data used by an instructor for demonstration purposes (Plale et al., 2019). For this study, we conceptualized "shared data" as a noun – an item, such as a common dataset that is collectively analysed. This contrasts with the verb form "sharing data," in which the focus is the act of sharing the data itself, such as in a peer exchange experience. While not mutually exclusive, this distinction helped us to identify and describe the conceptualizations of shared data used at both Sites A and B.

Site A demonstrated the verb form of "sharing data" throughout small-group activities, which functioned like peer review sessions where each student owner of the data received feedback from their collaborators. Since all students in Advanced Qualitative 3 at Site A entered the course with their own qualitative data, and those students fully expected to work with their own data to support their thesis/dissertation research, conceiving of "shared data" as a verb seemed a natural activity for this context. While Site A did not use shared data as originally defined in this study (i.e., noun), students nonetheless engaged in processes of active learning by sharing their own data to deepen systems of analysis. However, Site B did demonstrated "shared

data" as a noun, where instructor's taught data analysis primarily using shared data (at least until students gained data collection experience). While Site A preferred "sharing data" and Site B tended towards "shared data," both sites worked across modalities to deepen the qualitative analysis learning process, therefore conceiving of "shared data" as both noun and verb across different contexts and pedagogical purposes.

Subtheme 2a: Benefits of using shared data to guide pedagogical structure of qualitative data analysis courses

Along with discussions of doing qualitative data analysis, as described in Theme 1, participants at both sites also discussed the benefits and, in some cases, the challenges of using shared data. In particular, Site A's instructor identified several benefits of shared data in the classroom, including shared vulnerability and collaborative engagement, which each spurred their own benefits as well.

Sharing vulnerability. As a peer review experience, Site A's instructor discussed several benefits of "sharing data" (verb). Here, the learning exercises centered around sharing data, while also creating opportunities for students to practice sharing vulnerability. Instructor A noted this shared vulnerability shifted student focus away from their own individual vulnerability or insecurity and instead towards a collective experience so that "nobody's having to put themselves out there." She continued, "there's something really vulnerable about sharing – sharing writing and sharing data with other people" (Instructor A, interview). Instructor A explained how students may turn to negative self-talk (e.g., 'idiot' and 'moron'), noting how students may internally judge themselves as they exchange their own data and analyses with peers. Remembering in-class activities of her advanced course where students exchanged their own data, Instructor A recalled that students often "brought different data after the first week," suggesting this may have indicated some discomfort or levels of vulnerability.

Regardless, sharing data functions as a mechanism to foster pedagogical opportunities for vulnerability in community.

Focus on process. The instructor at Site A described how active learning approaches, such as using shared data in introductory courses, allow students to focus on "the process rather than the content." She shared that, "using something they're [student's] completely unfamiliar with is kind of useful because then they're not so stuck on the content and they can look at the process." For Instructor A, then, shared data was a pedagogical tool used to focus and re-center the qualitative methods course onto *teaching* qualitative method*s* (rather than, for instance, completing individual research projects). Echoing the benefits of using shared data to teach qualitative analysis as an iterative process (for a deeper discussion of this, see Karcher et al. 2021), a student at Site B, Sammy, described an in-class activity as generally informative to conducting their own research. They noted, "…being able to read an interview done like that was helpful in my own work. Kind of like an example of what to follow." Sammy concluded that analysing a shared dataset helped them produce a better analysis in their own research because having the experience of actively analysing some shared data allowed them to first learn, do, and practice the type of analysis. The utilization of shared datasets to teach and learn qualitative research methods underscores both the importance of process and technique, facilitating valuable opportunities to practice which may ultimately enhance the quality of future research.

Collaborative engagement. Both Site A and B Instructors discussed collaborative engagement as another benefit of using shared data. The instructors created in-class activities that allowed students to collaboratively analyse the same dataset, which seemed to facilitate greater participation across the classroom. Instructor A noted that one of the benefits that arises from "using data that they're [students] completely

unfamiliar with" is found in both the benefits of collaboratively building knowledge, while also not becoming "so stuck on the content so they can look at the [data analysis] process." Instructor A went on to describe this process as collaborative engagement, which would lead to better analyses. She shared that "In all my classes and everything in the class, there's some element of a peer review, peer collaboration, peer feedback". She also emphasized that because collaboration permeated every activity in the course, collaborative engagement created an opportunity for students to improve their analyses with diverse input at every stage of the research process.

Site A's Instructor discussed a result of this collaborative engagement as students' recognition of peers as supportive contributors, rather than competitors, helping to discourage the divisive competition that they saw as characteristic of academic culture.

> I feel like there's a lot of like competitiveness and there's this this very dark aspect to academia where you're always set up to see other people as an obstacle… it's like the idea of equity, right? It's not like pie, we can all get a piece and we're still not going to be out of pie. But it's like there's an aspect of doctoral education that feels like that sometimes where it's like, 'I can't be happy for this person for getting a publication because I don't have one yet.' 'I can't be happy for this person for being a part of a grant because I haven't done that yet.'. And I don't think faculty help because we're constantly [talking about the] publish and perish agenda.

Instructor A illustrated this "competitiveness" of academic culture by describing two groups. She discussed this "competitiveness" in doctoral education, where students neglect to celebrate other students who have success in different areas and/or to greater degrees. Describing faculty, she mentioned the popular "publish or perish" expression, which refers to the academic tradition of professional success primarily relying on producing publications. Both examples of competition focus on comparison and seeing the other as an "obstacle" to one's own success and growth. Moreover, these examples align well with the higher education literature that emphasizes how the "publish or

perish" mentality aligns with neoliberal tenets that prioritize individual success (e.g., Medikizela-Madiya, 2023).

To combat this competitiveness, Instructor A noted how collaboration, such as working with one another's datasets, helped grow students' perception of each other as contributors to their own development. While a shared dataset may reorientate students to the analytic process rather than feelings of vulnerability, data sharing (verb) offers and represents an empathetic and ethically driven process. Instructor A elaborated that collaboration among students particularly enabled them to demonstrate their strengths in front of their peers. Describing one student's strength, she shared how "it's been useful to have other students see her in that mode… sharing her data and talking through that; and so it was useful, it was educative." Instructor A emphasized that peer collaboration encouraged individual student growth around learning how to *do* and share qualitative data analysis. At the same time, it contributed to developing a stronger peer community network. Students' collaborative engagement contributed to their ability to not only offer their strengths, but also receive new perspectives and insights from their collaborators.

> So for the data analysis, I have some that are very like arts-based thinkers and I have some that are not, I am not. But like when they were working with other people, they would be like, well, yeah, but what if you did this or you could do this in Canva or like Padlet can make this really cool. And so there are a number of them that when they got to their [course project], they're like, I want to play with this tool now because I've thought about like the way that it potentially works in my research. And so that's one of the things that's a benefit of them working collaboratively is that it given them it gives them tools, it gives them perspectives, it gives them ideas that they're not going to get otherwise.

Similarly, Nikki, a student at Site A, shared their experience with gaining new perspectives as they worked with classmates to collaboratively analyse data.

> What does that mean, if I look at this whole dataset with this other lens? So then after we had discussed all that with the small group, we came back another week with a different group and did something similar, like we were to extend that conversation. And so then I was like trying to defend to my classmates why I thought that other lens would be appropriate for this dataset. And so then, we got a chance to kind of bounce

> these ideas off of each other. And then you know some people in the group were like, oh, thank you for that feedback. I hadn't considered it that way, now I think I'm going to look at it in this way. And so we actually were informing each other with our various ideas and our feedback.

As Nikki highlights, revisiting datasets and sharing feedback in data sessions with peers challenges previous perspectives while introducing new ones.

Reconstructing researcher identities. Finally, Instructor A shared that collaborative engagement contributed to students' reconstructing their researcher identities. She described:

> A lot of the students initially had this attitude of, I'm not really a researcher yet. I'm not doing my own research yet. Like I'm not, I'm not for real yet… But then like having them share and give feedback to one another. It was useful because a number of them were like, okay, so I haven't done my own data collection yet, but I can get the tenets of research ... I can offer feedback to other people that have collected their own data. And so it's like shifting this mindset [that] one has to have collected all this data independently in order to be a researcher.

As Instructor A highlights here, engaging in qualitative analysis with shared data allows students to reconstruct their identities as researchers, and she also expands the definition of what it entails to be a qualitative researcher and engage in qualitative research. Even early in her class, Instructor A intuited that student's felt, "I'm not really a researcher yet...I'm not for real yet." However, throughout the course, students' "shared vulnerability" as well as their willingness to see themselves and their peers as powerful contributors in the analytical process, encouraged the reconstruction of their researcher identities.

Subtheme 2b: Challenges of using shared data to guide pedagogical structure of qualitative data analysis courses.

Despite many of the participants unequivocally pointing to the benefits of using shared data to learn qualitative data analysis, one student, Jonny (Site B), remarked on the difficulty of using shared data when not provided with the necessary contextualizing information about the data. In their interview, Jonny described ways missing context

could impact the quality of an analysis. Reflecting on the class activity overviewed in Theme 1, Jonny noted the importance of background information:

> So in a certain way it was like, here's this random thing, analyse it, and code it. And I mean, I think the experience was helpful in certain ways, but it would have been more helpful if we had had some of that context about like okay, like this is what the research questions were... like the abstract of the study or something like this. Just something that would give you a bit more context about what we were supposed to be looking for.

In this conversation, Jonny mentioned several times the desire to know the research questions for the study in order to have a "guiding framework" to analyse the data. This perspective highlights the importance of offering detailed information about a study when using shared data to teach analysis. Unfortunately, both instructors spoke to the challenge of providing enough context about shared datasets to make the analysis process meaningful. Yet, Instructor B noted that analysing a shared segment of interview data is challenging when little context is offered; and consequently, students may not invest in classroom activities and lectures. This highlights the importance of including all relevant information, including details on missing or withheld context (i.e., for ethical, practical, or pedagogical reasons). Yet, it was also noted that it is not always possible to include all details that people consider necessary contextual information; and it should not serve as a reason to avoid using shared data to teach qualitative methods. While constraints certainly exist when turning to shared data to teach qualitative data analysis, the instructors and students overwhelmingly noted the pedagogical possibilities and preferences for this active learning approach.

Discussion

Research has increasingly pointed to the ways that active learning benefits how students come to understand and retain course material (Currin-Percival and Johnson 2010). While scholars have studied how shared datasets inform quantitative methods courses (Elman et al. 2015), less literature and guidance targets qualitative audiences. Although exceptions exist (Bishop 2012; Haaker and Morgan-Brett 2017), the lack of empirical

research is detrimental to qualitative instructors hoping to integrate enriching experiential learning exercises across the course sequence. As such, this study contributes to the pedagogical ways in which active learning is facilitated through the incorporation of "shared data" in qualitative methods classes.

Participant conceptualizations and practices with shared data varied amongst individuals and across research sites, with Site A generally orientating to sharing data as a verb, and Site B approaching shared data as a noun. Moreover, participants emphasized how teaching qualitative data analysis works best when it means that students are *doing* qualitative data analysis as shared data facilitates.

In our analysis, we found two different approaches to facilitating active learning using data in the classroom, each with specific strengths. When using students' own shared data – sharing data – as Instructor A did, methods instruction can foster a sense of shared vulnerability and, with that, compassion, community, and collegiality in the classroom. When using external data sources – as Instructor B did, and Instructor A mentioned using in introductory methods classes – instructors allow students to focus on the process of analysis, rather than its content. As student-participants highlighted, this can be a useful way to focus on learning the methodological nuances of qualitative research. Nevertheless, our interviews with students suggest that even in these cases, instructors should provide sufficient context to the data to allow for 'epistemically responsible reuse' (Karcher et al., 2021) and analysis.

Regardless of whether using shared data or sharing data approaches, we find that jointly engaging in data analysis in the classroom fosters collaboration among graduate students and helps them recognize both themselves in their developing identity as researchers. Where effectively employed, as by the instructors we observed, shared data

becomes more than an effective tool to teach analytic skills: it helps develop students' identities and communities – key goals of effective graduate-level education.

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