Open Science in Qualitative Evaluation: Considerations and Opportunities

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Abstract

This article discusses how open science principles—often rooted in quantitative epistemologies—and qualitative evaluation practices can complement each other and explores strategies for evaluators and researchers to consider adopting in their practices. Although the qualitative and quantitative approaches to knowledge creation may be perceived as being in conflict, many practices and values can be viewed as different expressions of the shared goals of rigor and transparency. We describe practices like data, process, and outcome sharing as activities that already align with open science values and encourage evaluators to consider practices like preregistration, registered reports, and replication as possible areas for evaluators to expand into. We also encourage evaluators to contribute to conversations about transparency, community engagement, evaluating effectiveness, and avoiding harm. A flexible, additive approach to evaluation and research projects can allow all parties to draw on each other's strengths for more rigorous, comprehensive, transparent, and community-centered work. Finally, we suggest a few starting places for evaluators who are interested in incorporating open science practices and researchers who are interested in conducting qualitative evaluations.

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Introduction

Open science, also known as open scholarship or open research, encompasses practices that enhance transparency in scholarly work. Discourse often centers on practices like preregistration, open data, and replication, mainly benefiting quantitative research (Silverstein et al. 2024). Researchers have highlighted tensions between mainstream discussions of open science and the philosophies and practicalities of qualitative research (Class et al. 2021; Field and Derkson 2021; Steltenpohl et al. 2023). Quantitative and qualitative researchers often take different epistemological approaches (Field and Derkson 2021), which can lead them to prioritize different values throughout the research process or to define terms like transparency and rigor in similar yet distinct ways (Steltenpohl et al. 2023). For example, mainstream open science advocates may define transparency narrowly along a prescribed set of practices (e.g., materials and code sharing, preregistration), whereas qualitative researchers may additionally include other practices that expand both on what is being shared and with whom (e.g., reflexivity, community involvement).

Despite these tensions, scholars have identified some best practices in qualitative research that align with open science practices (Makel et al. 2022; Steltenpohl et al. 2023). Given the evolving nature of discussions around best practices in open science, evaluators are uniquely positioned to engage with the open science community because of shared values related to transparency, rigor, and equity. This paper explores how qualitative evaluation practices align with open science principles.

Practices That Already Align With Open Science Principles

Data Sharing

Data sharing must be carefully considered with an understanding of theoretical and practical challenges unique to qualitative evaluation. Many of these challenges revolve around ethical and privacy practices put in place to avoid harm to participants and communities while maintaining transparency and accountability. Technological advances and growing mandates from funders have increased the ease of data sharing in qualitative research, with many researchers using repositories such as Qualidata and the Qualitative Data Repository (QDR, Antonio et al. 2020; Joyce et al. 2022) to share materials like transcripts, protocols, and researcher memos with their reflections, commentaries, and notes on their work with the data. Open science platforms like the Open Science Framework (OSF; Sullivan et al. 2019) and tools like Zotero also support sharing research and evaluation materials. Evaluators must, however, engage in forward planning and be explicit during participant recruitment about what will be shared to confirm their participation, that they consent to their transcripts being publicly available on repositories, and whether they want their identities associated with their perspectives (Field et al. 2021). Although participants may be familiar with isolated quotations

being shared in publications, they may not understand that these repositories could contain everything from their participation in a study.

Data sharing is possible with a variety of types of qualitative data, including but not limited to interview transcripts, survey responses, photographs, personal diaries, and other printed materials or observational records. However, special consideration should be taken into account when sharing data in a public repository because seemingly unimportant or irrelevant information could adversely affect participants if they were linked back to their data. Additionally, participants who are aware that details of their participation will be shared could influence if and/or how they participate in a study. Campbell, Javorka, et al. (2023) recommend a three-phase process for preparing sensitive data for sharing, wherein researchers (1) consult with stakeholders and community members to understand concerns and re-identifiability risks, (2) determine potentially identifiable information and create strategies for appropriately concealing this information while retaining utility, and (3) assess the validity of the de-identification process.

For example, Campbell, Javorka, et al. (2023) were working with interview data describing the experiences of people who had experienced sexual assault within a fairly specific geographic region and reported it to authorities—a vulnerable and fairly easily identifiable group. They consulted current regulatory guidance, the literature, the research participants themselves, subject-matter experts, and court transcripts (to find examples of details that may be similar between interviews and publicly available information). They then created a codebook that also allowed them to identify identifiable information and topics and created guidance for ambiguously identifiable information. This enabled them to decide when data should be "blurred" (e.g., a specific date turned into a date range) or redacted (removed completely and replaced with a general summary when possible) and then assessed the validity of these strategies. The authors also opted to share their data in a managed access repository, which meant the team could outline the conditions under which the repository would grant access to the data (it was not open for just anyone to download).

The process described above—with adaptations as necessary— may assist evaluators in determining what information is appropriate to share, under what conditions, and how to best balance the need for transparency with the need to protect participants.

Process Sharing

In addition to sharing data, there are also increased calls for researchers to make the "human side" of the research process—including motivations and decisions made during the research lifecycle—more transparent (Jamieson et al. 2023; Roberts et al. 2020; Steltenpohl et al. 2023). Evaluators often make intervention materials and reports available and can share their reflexive memos, logic models, and other materials to make the process more transparent. Given that processes for sharing non-data research and evaluation materials are not yet formalized, evaluators may also have additional insights to add to conversations for what materials are appropriate to share in a variety of contexts, especially in light of current conversations around

sensitive qualitative data (Campbell, Goodman-Williams, Engleton, et al. 2023; Campbell, Goodman-Williams, Javorka, et al. 2023). For instance, evaluators should be mindful to de-identify participant information to protect privacy and confidentiality when sharing materials of their qualitative process, especially because participants could potentially "face negative social, economic, legal, and/or health consequences" (Campbell, Javorka, et al. 2023, 3). Similar concerns about community context and vulnerabilities may also apply to sharing intervention materials, and evaluators may wish to engage in similar processes to obtain community consensus around the benefits and risks of sharing evaluation materials to the broader public or under managed or limited access.

Sharing process materials can help new evaluators learn how evaluations are done, meta-analysts more thoroughly review the literature, and communities who are working on their own interventions. As with data, it is important to include relevant context and recommendations and to share materials with the appropriate license (e.g., Creative Commons; see Linnell & Moore, this issue) so others know how they are and are not allowed to use your materials.

Outcome Sharing

Evaluators are already attuned to conversations around making our findings—and the means by which our findings came to be— more readily available to the public. There are many opportunities for evaluators to dig into these practices and work alongside researchers to develop workflows for engaging in practices that help increase the transparency of research and evaluation. Evaluators may also be able to help further assist open researchers expand their perspective of transparency beyond that of an amorphous "general public" and toward specific communities that may benefit from findings through transparency-enhancing practices such as community boards, member checking, and others.

Practices Evaluators Can Take From Open Science

Preregistration and Registered Reports

Preregistration and registered reports have the potential to improve evaluation transparency and rigor (Branney et al. 2023; Peck and Litwok 2025). Preregistration refers to the practice of creating an analysis plan and uploading it to a registry, where it can be timestamped (Nosek et al. 2019) and updated as needed (Corker et al. 2022). In research settings, registered reports take this a step further: analysis plans are peer-reviewed by the same people who would review a typical manuscript, and, if accepted, the results are provisionally accepted, regardless of outcome (Nosek and Lakens 2014).

Preregistration and registered reports have been used for research using qualitative methods (for a few examples, see Karhulahti et al. 2022; Stegenga et al. 2023). However, there do not

(yet) appear to be many examples of either preregistration or registered reports within evaluation settings, which often do not result in papers in academic journals. There are open questions as to what a registered report, for example, might look like for an evaluation project in which the intended outcome is not an academic article and whether evaluation clients would even desire such validation, but one might imagine evaluators requesting formal review during the planning stage from evaluators with similar expertise.

Although traditionally linked to quantitative research, qualitative examples of preregistrations and registered reports now exist, offering evaluators structured guidance on designing and evaluating qualitative registered reports (Karhulahti et al. 2022, 2023). Qualitative registration templates include space for researchers to include information about the research aims and questions, study design and sampling strategies, data sources and types, data collection strategies and stopping criteria, data analysis approaches and processes, strategies for ensuring credibility, and other information like positionality (Haven et al. 2020). Evaluators may be particularly interested in preregistration for the purposes of systematically showing the evolution of an evaluation project and documenting important contextual information and reflexivity over time. It is important to note that there are perceived theoretical (e.g., inductive vs. deductive research) and practical challenges (e.g., understanding tools and platforms) associated with preregistration (e.g. Navarro 2020, 2021). However, preregistration could assist qualitative evaluators carefully consider theory development throughout the process and provide more transparency around those interpretations. Peck and Litwok (this issue) explore some important considerations for preregistration within an evaluation context.

Replications

Several commentaries explore whether replication—studies that provide diagnostic evidence about claims from prior research (Nosek and Errington 2020)—is possible or useful for qualitative research (Makel et al. 2022; Pownall 2024). Similarly, it is currently unclear in what ways replication may be useful for evaluators, but our experience in the field suggests that it may be beneficial for understanding the reliability of results in similar contexts and constraints on the generalizability of an intervention. For example, evaluators or funders may be interested in seeing whether an intervention works in different settings; in this case, replication may enable informative comparisons if they are done systematically, changing one or two aspects of the intervention at a time and there is high fidelity to the intervention plan. These open science principles can also bring evaluation, and practice. Although some may perceive evaluation to be one-touch work instead of large-scale or focused on generalizability, it shares the goal of gathering knowledge and producing rigorous and transparent work—both of which are tenants of open science (Crüwell et al. 2019).

Considerations for Adopting Open Science Practices

There is ongoing debate about applying open science in qualitative research, which values flexibility and iteration (Haven and Van Grootel 2019). However, adapting open science practices like reflexive documentation, such as memos and detailed notes of methodological choices, and transparent reporting can preserve qualitative methods' strengths while enhancing rigor and accountability. Modifying tools like preregistration for qualitative settings can bridge open science values and qualitative evaluation needs. For example, a workflow framed by open science principles can provide opportunities for evaluators to systematize their projects for clarity and efficiency. Additionally, resources for navigating the diverse tools available to evaluators and researchers can clarify the process and remove some of the overwhelming burden.

Kathatwalla et al. (2021) suggest choosing which practices may be most suitable for a specific project or context and focusing on implementing those practices well instead of trying to do everything all at once all the time. For example, organizing research through a dedicated outline and plan similar to a registered report may help keep the project both on task and on target. Using cloud document storage or shared files to keep a project open to the entire project team, rather than the entire world, can help facilitate keeping the team informed. Segmenting work across multiple versions of shared files can also help keep work history clear to all collaborators. Importantly, these approaches can work no matter the methodological approach of the evaluation. These tenants of transparency, reproducibility, and efficiency can be adjusted or accommodated for any project.

Practices Evaluators Can Teach Open Science Practitioners

Just as evaluators can benefit from open science practices, evaluators can also inform the open science movement, particularly around broadening views of transparency, evaluating initiatives, and integrating Indigenous evaluation practices.

A Broader Definition of Transparency

Evaluators often embrace a broad definition of transparency, reflecting their responsibility to both researchers and the communities they serve. Reflexivity, or the critical examination of one's role and influence on the research, is vital in evaluation because human decisions directly impact findings (Field and Derksen 2021). Reflecting on how the researcher-participant relationship influences data collection and interpretation is a necessary part of open science practices. Evaluators can teach open science practitioners to be reflexive through consistent, detailed memotaking, transparent reporting through positionality statements, and outlining the reasoning for their decisions (Olmos-Vega et al. 2023). Evaluators need to have the forethought to plan intentional activities for reflection. Developing a reflexive action plan can be shared with others and enhance transparency in the evaluative process. For example, van Draanen (2016) engaged in a participatory evaluation and mapped out intentional activities and guiding

questions for critical internal reflection. They also mapped out how they could engage with participants, their evaluative team, and community members to aid in their reflexivity.

Prioritizing Community Engagement

Many evaluators value community involvement because it enhances transparency and increases opportunities to rigorously integrate community feedback that ensures the work aligns with community needs. In participatory frameworks, communities are involved with program design, implementation, evaluation, and knowledge dissemination. Implementation staff and evaluators also ensure communities are updated about program decisions and actions. Indeed, the aims of participatory research include empowering communities toward sustained change and increased ability to solve future problems related to the topic studied (Lake and Wendland 2018).

Qualitative methods that involve communities throughout the research process facilitate these aims by including the participant-researcher relationship/partnership as an influence on context and meaning. This allows for greater nuance and understanding of the processes, adaptations, and outcomes. Drawing on the field of anthropology, which uses qualitative methods extensively, Vella et al. (2021) note that qualitative research methods offer "a deeper layer of tacit and implicit knowledge, values, experiences, and reflections that may otherwise be overlooked" (547). For example, in research with teen parents from a Northern Plains reservation (Douglas 2013), gualitative research methods were used to evaluate the perspectives and experiences of teen parents. This revealed the nuance that the role of a grandmother figure is a protective factor. Phenomenological analyses revealed that the grandmothers influenced the teen parents toward decreases in risky behaviors, increases in education engagement, and greater parenting efficacy. While quantitative research revealed the need for interventions for this population, qualitative research provided knowledge of specific avenues to strengthen and tailor the interventions for the success of teen parents in this culture. Helping open science practitioners to create, sustain, and evaluate reciprocal partnerships can increase equity, transparency, and rigor in research and outreach (Fleming et al. 2021).

Evaluating the Logic and Effectiveness of Open Science Initiatives

Evaluators are also experts in using a variety of tools to determine whether programs or initiatives are meeting their stated goals. For example, logic models make a program's theory of action more transparent by outlining specific assumptions, conditions, and actions taken throughout a program to contextualize results and impact (Smith et al. 2020). The open science movement has suggested many interventions, including those listed in this paper, but there is limited evidence of their effectiveness (Pownall et al. 2023), whether initiatives are being implemented with fidelity, and whether there are unintended effects (e.g., Schneider et al. 2022). Evaluators could serve an important role in helping the open science community identify what initiatives are—and are not—actually improving scientific practices.

Intentionally Avoiding Harm

Relatedly, challenging impacts of harmful research practices include learning from evaluation with Indigenous peoples about best practices for increasing trust and protections of vulnerable communities (e.g., Fish et al. 2023). Acknowledging researcher complicity in the history of mistrust and silencing of voices is critical. Researchers must use contextually supportive practices to meet community needs and restore trust while reaching collaborative goals of reciprocal relationships (Schaffrick et al. 2023). After all, three strengths of qualitative evaluation are agility, sensitivity, and opportunity for "novel and creative truth-exploring about and positioned within marginalized experience" (Bennet 2021, 448). Open evaluation practices can make that agility, sensitivity, and opportunity more accessible. However, we may also deepen pre-existing inequities between quantitative and qualitative evaluation unless scholars critically examine how they use these practices (Steltenpohl et al. 2023). While using open science to restore trust and address the harms wrought on minoritized and marginalized communities, scholars must also examine the systems of power and privilege associated with these practices. Doing so can demonstrate open science's relevance to evaluation while addressing concerns that these practices may further minimize the representation and value of qualitative evaluation.

Conclusion

Many opportunities for evaluators—particularly gualitative and mixed methods evaluators—and mainstream open science practitioners exist to collaborate and learn from one another, whether through joint workshops, co-authored publications, or working on shared repositories. While evaluators and open science practitioners apply terms like transparency and rigor differently, their shared values provide a foundation for collaboration. Ongoing dialogue between these communities can bridge gaps, leading to more effective, ethical, and impactful research. Centering intentional communication within the workflow process to check that participants are aligned about the project-and creating space to resolve the differences-may help evaluators and researchers learn from one another about how to create transparent, rigorous, and equitable work. Moreover, leveraging shared values can promote robust evidence collection and application, thus creating more effective and efficient practices. Both groups have valuable experiences and knowledge to share about how to create a more robust science and practice, and selecting appropriate open science options to incorporate can benefit both parties. Qualitative data can inform quantitative research data. For example, qualitative research practices allow researchers to gain greater insight into the experiences of participants and other influences (values, political climate, priorities, environment, etc). This richer understanding is needed and continually developed throughout the research process by practices such as reflexivity and transparency. This creates trust, which increases the likelihood of honesty and reciprocal learning. This in turn provides better knowledge dissemination and action. This can be seen in the effectiveness of interventions. We can determine quantitatively that a population needs an intervention. However, implementation and adherence will be enhanced significantly by gualitative research methods that collect information to increase understanding of the population the intervention is for.

Qualitative and mixed methods evaluators and researchers who are interested in learning more about open science have a number of resources they can now turn to, including the Framework for_Open and Reproducible Research and Teaching (FORRT; <u>https:/forrt.org</u>) and Quala Lab (<u>https://qualalab.org</u>). By being actively involved in conversations about what standards we should have and what practices are useful for our field, we can improve the understanding of evaluation and its goals and ensure that our activities are appropriately assessed in the right context.

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