To OS or Not to OS

Challenges and Opportunities of Embracing Open Science in Qualitative Research APPE RISE Pre-Conference Symposium, February 24, 2022 Amy Koerber, Jesse C. Starkey, Kerk F. Kee, Lyombe Eko, Karin Ardon-Dryer, Robert Glenn Cummins



Questions for today's presentation



WHY?

Why should we care about open science in the context of qualitative research?

HOW?

How do we implement open science principles in qualitative research?

WHAT?

What challenges did we face in implementing open science principles in our own study? Background



What is Open Science?



Definitions

IN PHILOSOPHY

"science that is practiced with transparency and integrity, and with an emphasis on collaboration and inclusion" (Field et al., 2021)

Antidote to "replication crisis" in quantitative research (<u>Renkewitz & Heene, 2019</u>)

IN PRACTICE

Research practices such as data sharing, preregistration of research designs, open access publishing, preprint publication, and open peer review (<u>Vicente-Saez &</u> <u>Martinez-Fuentes, 2018</u>)



OS in Qualitative Research

BENEFITS

transparency and accountability (<u>Chauvette, Schick-Makaroff, &</u> <u>Molzahn, 2019</u>)

efficiency and economy (<u>Corti &</u> <u>Fielding, 2016</u>)

"diversity in analysis and opinion" (<u>Chauvette,</u> <u>Schick-Makaroff, & Molzahn,</u> <u>2019</u>)

COMPLICATIONS

"...replication misses the point..." (<u>Pratt, Kaplan, &</u> <u>Whittington, 2020</u>)

"cost-benefit balance" (<u>Field et</u> <u>al., 2021</u>)

de-contextualization (<u>Chauvette</u>, <u>Schick-Makaroff, & Molzahn</u>, <u>2019</u>)

informed consent (Heaton, 2008)



Our project: NSF STEPP

STEM Training in Ethics of Publication Practices

RESEARCH AND GOALS

- 48 interviews: March October 2020 (800 pages of transcripts)
- Extensive textual analysis: case studies, content analysis, and legal analysis
- Goal: understanding "predatory publishing" from diverse stakeholder perspectives
- Current status: analyzing data, writing and publishing results (one article published, one under review, book manuscript in progress)



Interview findings

Some highlights

OPEN SCIENCE AS ANTIDOTE TO "PREDATORY PUBLISHING"

- Traditional peer review occurs behind closed doors--how do we know it actually happens?
- Same is true for so much of the process in scholarly research--how can we truly assess quality without having access to the data?
- "Predatory publishing" and other suspect publishing practices thrive on this closed/black-box nature of traditional science

Examples from our study



"STEPP NVivo file"

Koerber, A. (2020). *STEPP NVivo file*. Texas Data Repository. https://doi.org/10.18738/T8/F3 QE0H



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Preprints are preliminary reports that have not undergone peer review. They should not be considered conclusive, used to inform clinical practice, or referenced by the media as validated information.

Challenges and Threats to Quality in Scholarly Knowledge Production: Views of Selected Stakeholders from 17 Countries

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Research Article

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Declarations

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Conflicts of interest/Competing interests (include appropriate disclosures)

The authors declare they have no conflict of interest.

Data Availability

Data for this project, in the form of NVivo files, is archived in the Texas Data Repository and can be found here https://doi.org/10.18738/T8/LD7SSX.

Authors' contributions

First and second author (J. Starkey & A. Koerber) were primary contributors to the article content and

Dataset #2

"Research Quality"

Koerber, A. (2021). NVivo file for research quality manuscript. Texas Data Repository. https://doi.org/10.18738/T8/L D7SSX



Challenges and Lessons Learned

Externals		06_P07_Transcript		21	51
		07_P08_Transcript		36	132
ORGANIZE		08_P09_Transcript	C-D	35	136
Ξ Coding	*	09_P10_Transcript	69	30	78
Codes		10_P11_Transcript	60	25	63
Sentiment		11_P12_Transcript		29	69
Relationships		12_P13_Transcript	60	18	46
Relationship Types		13_P14 Transcript	6-0	18	30
		14_P15 Transcript	65	19	26
🛱 Cases	>	15_P16 Transcript		18	25
鼠 Notes	>	16_P17_Transcript	09	23	64
• Sets >	17_P18 Transcript		21	30	
		18_P19_Transcript	69	30	63
EXPLORE		19_P20_Transcript	69	10	34
Q Queries	>	20_P21 Transcript		25	46
	2	21_P22 Transcript		20	30
X Visualizations	>	22_P23 Transcript		24	54
Reports	>	23_P24 Transcript		14	21
		24_P25 Transcript		26	65
		25_P26 Transcript		46	78
		26_P27 Transcript		26	61
		27_P28 Transcript	00	23	39

For future consideration

IMPACT

- Dataset #1: 341 views, 23 downloads
- Dataset #2: 47 views, 0 downloads

ADVICE

- Consider other open science practices such as preregistration of study design and how these might apply in qualitative research
- If you intend to practice open data, keep that in mind from the beginning.



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