How Do I Judge This Stuff?

- The Development of Review Criteria for Judging Qualitative and Mixed Methods Research in Manuscripts and Grant Proposals.

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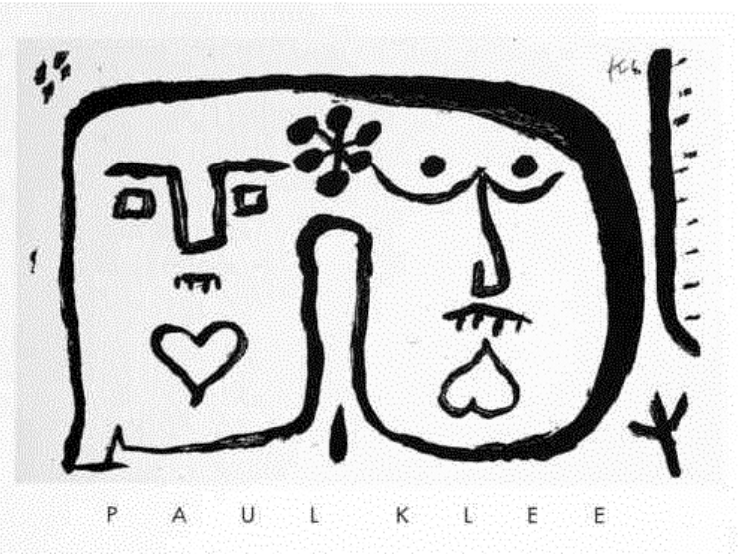
Audience.

- Non-qualitative health services researchers who may review qualitative or mixed methods manuscripts and grants.
- Researchers who are interested in exploring qualitative and mixed methods approaches.
- Qualitative researchers interested in review criteria.

Goal for the Cyber Seminar.

- Provide a list of criteria for reviewers to use in assessing qualitative/mixed methods in health services research.



Inspiration for the Cyber Seminar.

- At the 2009 VA Merit Review Award meeting (SMRB), non-qualitative reviewers asked: How do I judge this stuff?
- At the 2009 VA HSR&D meeting, the Mixed Methods Interest Group worked to develop criteria for judging qualitative abstracts.

Caveats.

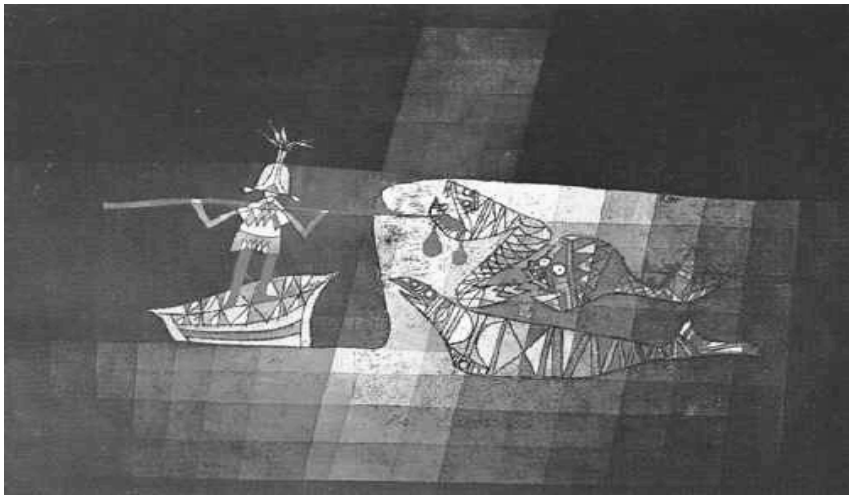
- Review criteria is based on personal experience as a trained qualitative researcher, the literature, and discussions with qualitative colleagues.
- The criteria are observations /conceptualizations open to interpretation.

Organization of the Seminar.

1. Explain key elements needed for strong qualitative research in manuscripts and grants.
2. Clarify the unique requirements for mixed methods studies.
3. Share a list of minimum criteria for assessing the strengths and weaknesses of qualitative and mixed methods studies.

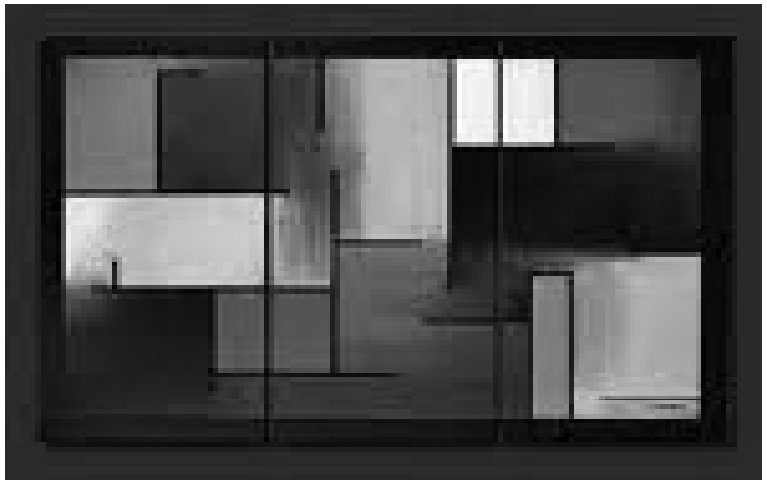
Handouts

- Review criteria for judging qualitative research.
- Additional review criteria for judging mixed methods research.
- A qualitative bibliography gathered from web-based resources.



QUALITATIVE METHODS IN MANUSCRIPTS AND GRANTS.

1. Research Topic.



1. Research Topic.

- The main research topic and (for grants) specific aim(s) must be qualitative in nature.
- The <u>need</u> for collecting qualitative data must be made clear by the investigator.
  - Should be clear why qualitative methods are being used instead of survey or another method.
- Typically qualitative researchers use research questions rather than hypotheses given the open-endedness of qualitative methods.

2. Participants.

2. Participants.

- Qualitative researchers traditionally use "purposive sampling" as a means of recruiting participants.
- Purposive sampling involves recruiting participants based on their unique experiences rather than using a random design.
  - Ex: Selecting only patients with very good and very bad experiences in receiving PTSD care.
- If no purposive sampling is used in a qualitative study, look for a brief rationale of why not.

2. Participants.

- Clear inclusion/exclusion criteria are provided for the sample.
- Must be clear that appropriate participants complete the qualitative data instruments.
  - Negative Ex: With topic `why patients fail to attend clinic appointments' investigators conduct focus groups with patients who do attend clinic appointments.

2. Participants.

- The design does not overburden participants and doesn't violate ethical principles.
  - Are participants capable of completing data collection?
    - Ex: Lengthy end-of-life interviews.
  - Are participants capable of providing informed consent?
    - Ex: Focus groups with severely mentally ill inpatients.

3. Types of Data Collection.

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- Data collection *can* include:
  - **Focus groups.**
  - **Interviews.**
  - Provider-patient clinical interactions.
  - Observations of participants' behaviors.
  - Capturing of advertisements, web sites, media presentations, etc.
- As focus groups and interviews are the most common, I will focus on these two ways of data collection.

3a. Focus Groups.

- Methods section should include:
  - Informed consent process.
  - Participants' payments.
    - Notice of serving refreshments to participants.
  - Details on organization and length of focus group.
    - Involves general details needed to understand focus group.
  - Details must include:
    - roles of moderator/facilitator, note taker.
    - training or pre-existing expertise of moderator/facilitator, note taker.

3a. Focus Groups.

- A study with group differences should separate participants into distinct focus groups or justify why not.
  - Ex: Study of gender-based differences in attitudes toward health care reform.
- A study that has power differences between participants should separate them into distinct focus groups or justify why not.
  - Ex: Study of surgeons and O.R. technicians' attitudes toward patient decision-making.

3a. Focus Groups.

- A consideration of sample size is important.
- There must be sufficient focus groups to meet the stated goal of the project.
  - Several focus groups will be sufficient to pilot test interview questions.
  - Many will be needed for a study where the focus groups are the primary mode of data collection.

3b. Interviews.

- The description needs to clarify what type of interview is being used: open-ended or semi-structured.
  - Open-ended allows for innovative insights from participants.
  - Semi-structured allows for collection of more similar data across interviews.

3b. Interviews.

- Similar to focus groups, the methods section should include:
  - Informed consent process.
  - Participants' payments.
  - Details on organization and length of interview.
    - Involves general details needed to understand the interview process.
  - Details on interview strategy:
    - In-person, per telephone, etc.
    - Cross-sectional or longitudinal.
  - Training of interviewer.

3b. Interviews.

- A consideration of sample size is important.
- Qualitative research uses "thematic saturation."
  - Idea that once no new themes arise, data collection is complete.
- Minimum sample size for saturation with interviews is around 20-25.
- The inclusion of multiple groups in a sample will results in the need for additional participants.
  - A topic with two groups (Ex: racial differences,) should double (40-50 interviews).
  - Per study site, 20-25 interviews is desirable.

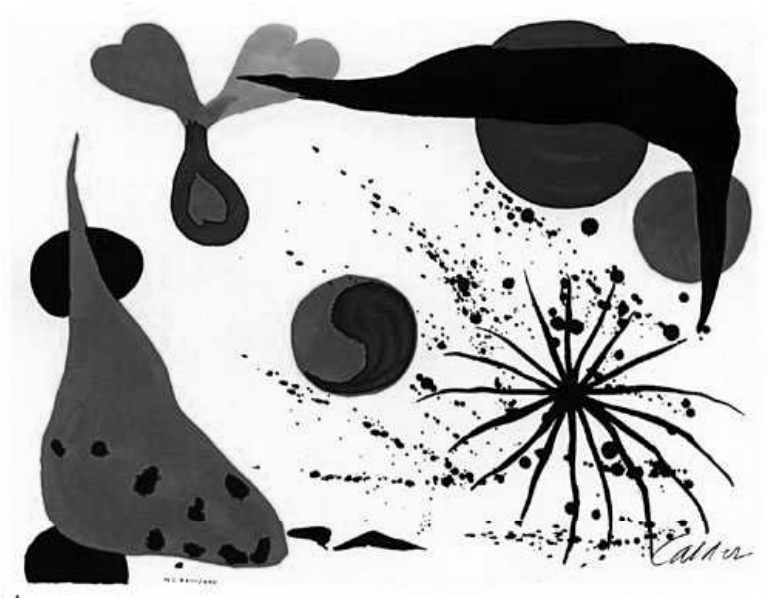
3c. Focus Groups and Interviews.

- Provide rationale for why the chosen method is used.
  - Ex. (focus group): "Given that a medical guideline is new, recording an open discussion between providers is important. Thus, we choose focus groups as it enables us to capture information most critical to our research topic."
- Clear discussion of how information will be saved.
  - Written notes alone.
  - Audio recordings.
  - Notes and audio recordings.

3c. Focus Groups and Interviews.

- Discussion of how data is presented for analysis.
  - Verbatim transcripts.
  - Use of audio tapes.
- Interview/focus group scripts should be made available in an appendix and well-crafted.
- Questions should be:
  - Clear.
  - Open-ended.
  - Logically progressing from topic to topic.
- Include plan for pilot testing and refining the script.

4. Qualitative Methodologies.



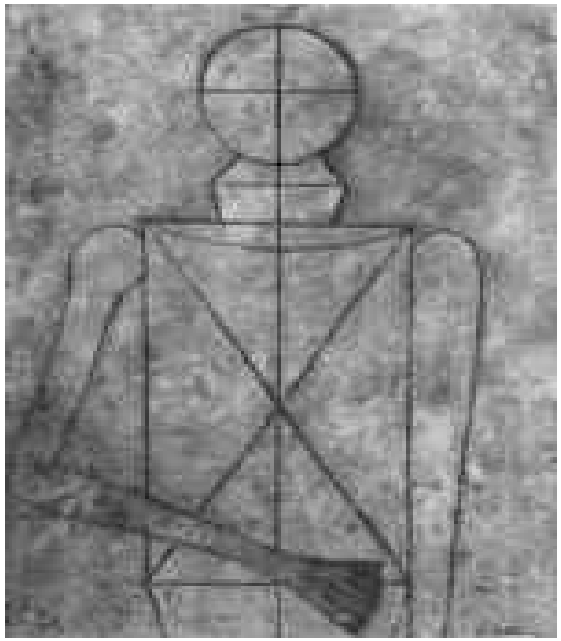
4. Qualitative Methodologies.

- **All qualitative studies require a methodology.**
  - A qualitative methodology is a specific approach to qualitative data that provides insight into how to analyze the qualitative data.
- Qualitative methodologies should be clearly described and grounded on accepted and referenced approaches.

4. Qualitative Methodologies.

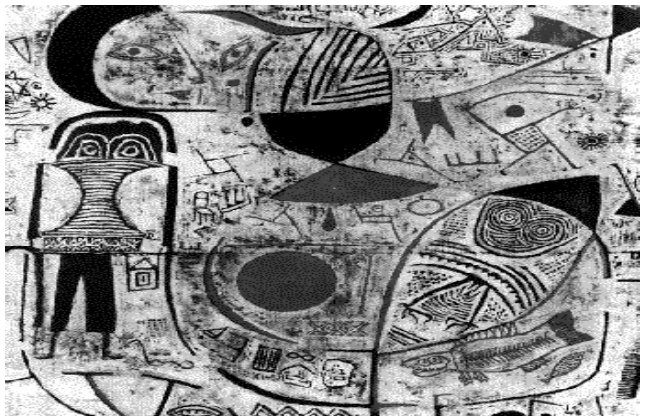
Frequently used qualitative methodologies in health services research include:

- Grounded Theory
- Ethnography
- Content Analysis
- Discourse Analysis



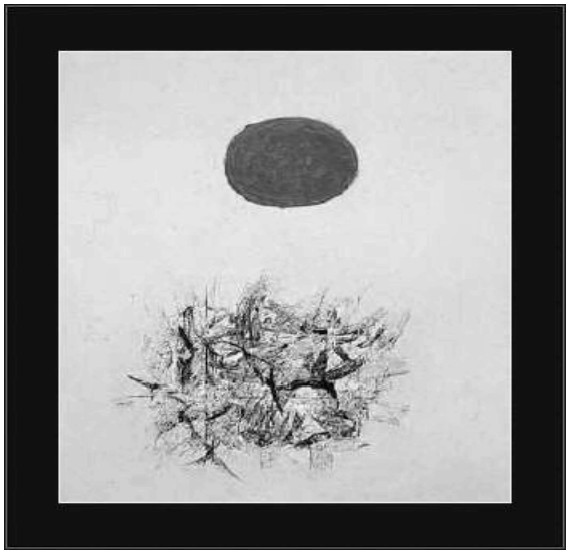
4. Qualitative Methodologies.

- No time here to provide a thorough definition of each.
- Prior Cyber Seminars include this information given by Dr. Jane Forman as well as myself.
  - They are archived and dated in early 2009.
- Additional resources are included on the bibliography available here as a handout.



4. Qualitative Methodologies.

- Attention needs to be given to what may be described as "modified grounded theory."
- This is not a formal theory and the reviewer should look for a thorough definition of the approach.
  - What specific elements cause it to be a "modified" version of grounded theory?



5. Data Analysis.

5a. Coders.

- A discussion of coders who will analyze the qualitative data is required.
- This should include:
  - The total number of coders.
  - Whether the coders include the principal investigator, co-investigators or research assistants.
  - The training process to be used for the coders and/or their prior expertise.

5a. Coders.

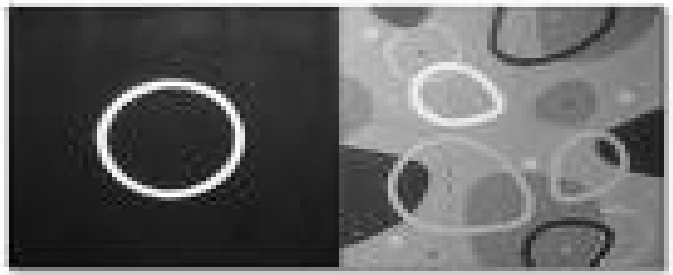
- The process for assessing reliability or agreement between the coders is important.
- This should include:
  - The adjudication process used between the coders.
  - The system used to assess intercoder reliability.
    - A formalized example is the use of kappa statistics for assessing intercoder reliability coupled with an adjudication process for determining final codes.
- System used should be clear and well justified.

5b. Data Management.

- A discussion of how the complexity of the coding will be managed is helpful.
- The emerging gold standard is to use a qualitative software program such as Atlas.ti or NVivo.
- Audit trails documenting the creation, collapsing, splitting of codes help to provide clarity on coding.

5c. Codebook Construction.

- A discussion of creating a qualitative codebook is required.
- The description needs to be clear on who is involved.
  - The process can involve the principal investigator, co-investigators, and/or trained research assistants.
- The process for determining which codes are added into the codebook needs to be clear.
- How does one address new codes that emerge once coding begins?



5d. Final Coding.

- The process of how codes are applied to the text and exemplified with quotes should be discussed.
- What criteria are used to determine how key codes are selected:
  - Frequency? Importance? Representativeness?
- For manuscripts, the codes discussed require clear definitions.
- Codes need to be illustrated with quotes.
  - Quotes should be illustrative and congruent with definitions.

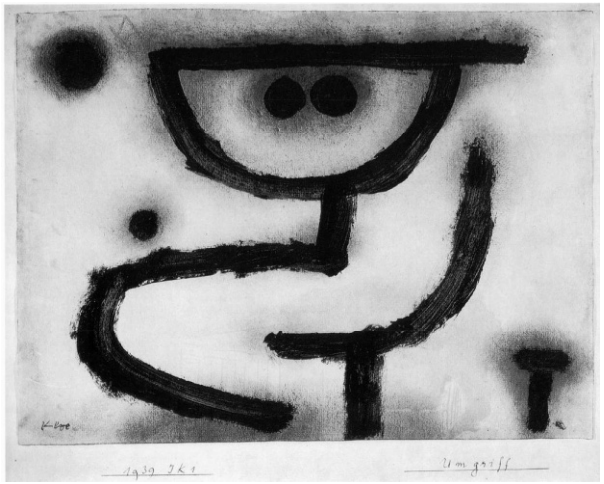
5e. Member Checking.

- The analysis may include member checking, a process of talking to the key participants after coding is complete to see if the results resonate with them.

MIXED METHODS.

Mixed Methods.

- Mixed methods is the term used for studies which include the collection and analysis of qualitative and quantitative data.
- The goal in this section is to present key criteria to use for judging how effectively the two types of data are integrated throughout the project.



Criteria for Mixed Methods.

- Mixed methods would use the <u>same criteria as outlined for qualitative research</u>.
- Mixed methods studies would also need to meet the following <u>additional criteria</u>.

- The descriptions should demonstrate that the mixed methods design is the best approach for the research question.
- The <u>need</u> for both qualitative and quantitative data should be clear.

Criteria for Mixed Methods.

- The mixed method study uses either:
- A <u>sequential design</u> (one type of data is collected first, following by the other).
- A <u>simultaneous design</u> (both types of data collected at the same time using the same participants).
- If using sequential mixed methods, the analysis is usually separated by data type. Yet it must be clear how they relate.
- If using simultaneous mixed methods, the data analysis plan must be sufficiently integrate.

THE DEVELOPMENT OF MINIMUM CRITERIA FOR STRONG QUALITATIVE/MIXED METHODS STUDIES

Rationale for Minimum Criteria.

- In discussing the needs of reviewers, many investigators expressed a desire for a short list of criteria that would separate strong from weak qualitative /mixed methods studies.
- The two handouts provide a more thorough list of criteria.
- However, in interest of meeting the stated needs, I propose a short list designed to highlight key minimum criteria for qualitative/mixed methods studies.

Minimum Criteria: Qualitative Studies

CRITERIA	YES	NO
The research question must be qualitative in nature.	☐	☐
The need for qualitative data for the study must be made clear.	☐	☐
The data collection method (focus groups, etc.) must be described in sufficient detail.	☐	☐
There must be a sufficient number of focus groups or interviews to meet the study's goals and to allow for the achievement of thematic saturation.	☐	☐
The form the data will be analyzed in (transcripts, audio tapes) must be clear.	☐	☐
A qualitative methodology is required and must be described in sufficient detail.	☐	☐

Minimum Criteria Required for Strong Qualitative Studies (cont.)

CRITERIA	YES	NO
The roles and training of coders must be discussed.	☐	☐
The process for assessing reliability or agreement between the coders must be discussed.	☐	☐
The codebook construction process and the approach to final coding is required (coding definitions and quotes required for manuscripts).	☐	☐

Additional Minimum Criteria for Strong Mixed Methods

CRITERIA	YES	NO
The investigator must show that the mixed methods design is the best approach for the research question.	☐	☐
The relationship between the qualitative and quantitative data must be clear.	☐	☐
The investigator must make clear whether a sequential or simultaneous mixed methods design is being used.	☐	☐
The data analysis plan includes both types of data. If sequential, the analysis is usually separated by data type. If simultaneous, the data analysis plan must be sufficiently integrated.	☐	☐

Cautionary Note.

- Given different data collection methods and qualitative methodologies, there can be many exceptions to the minimum criteria.
- Thus, <u>no set of criteria should be used too rigidly</u>.
- The strength of the qualitative expert should also be considered in determining strengths and weaknesses.

Conclusion.

- We have described the approach needed for:
  - Qualitative research.
  - Mixed methods research.
- Developed a minimum set of criteria for judging the strength of both types of research.
- It is hoped that the minimum criteria can set the stage for a wider discussion of ways of further refining these methods of judging interpretative works.

Thanks.

- Colleagues from the CHERP VA Pittsburgh Qualitative Research Core:
- Assistant Director, Dr. Keri Rodriguez.
- Core Chief Coordinator, Dr. Judy Tate.
- Colleagues from the VA HSR&D Mixed Methods Interest Group:
- Dr. Jane Forman & Laura Damschroder, MS, MPH, Ann Arbor MI VAMC.
- Dr. Barbara Bokhour, Bedford MA, VAMC.