Verification strategies to ensure reliability and validity in qualitative analysis

MNEA Webinar
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Presenters

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Agenda

- Introduction to article (Morse et al. 2002)
- Investigator responsiveness
- Verification strategies:
  - Methodological coherence
  - Appropriate sample
  - Collecting and analyzing data concurrently
  - Thinking theoretically
  - Theory development
- Evaluation and applied research applications
Based on what?


- We read this article and liked it!

- In this session, we’ll tell you how we interpreted this article and give you some ideas about how we use the strategies discussed in the article in our own work as evaluators and applied researchers.
Rigor in qualitative evaluation has been largely left up to users/readers to judge. Focus for researchers is on how to document it.

Readers/users use after-the-fact criteria to judge value, based on “trustworthiness”:
- Credibility, transferability, dependability, confirmability

However, procedural rigor (reliability, validity) is desirable and feasible:
- Authors propose standards to use during the research.
Related concepts

- **Internal validity:**
  - Does the research study / measure what it set out to?

- **External validity:**
  - Can the research be replicated? Generalized?

- **Developmental evaluation:**
  - Assess and apply learnings along the way
  - Adjust methods, or even research question, accordingly
Critique

- Assumes lots of resources and time
- Assumes we have “thick data”
- No mention of mixed methods
- Heavy emphasis on theory development, less on applied use
  - But, we argue that rigor is just as important for applied research!!
A qualitative researcher should be…

- **Open, letting go of previously held beliefs**
  - Be aware of and reduce personal biases

- **Sensitive and adaptive**
  - New evidence should be able to change your mind

- **Creative and insightful**
  - Focus on problem solving and questioning
Qualitative research rigor is threatened by…

- Over-adherence to strict instructions
  - Ground the research in the data
- Inability to abstract, synthesize, or go beyond the technicalities of the data
  - Make meaning from the data
- Working too deductively
  - Don’t over-apply existing models and constructs
Verification strategies

- The process of checking, confirming, making sure, and being certain
- Mechanisms to increase the reliability and validity of qualitative research
- Ultimately, improve research rigor and usefulness
Methodological coherence = Congruence

Verification processes ensure congruence (alignment) among the research questions, published literature, participants, data collection, and analysis

<table>
<thead>
<tr>
<th>Design</th>
<th>Implementation</th>
<th>Dissemination</th>
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Interact Center for the Visual and Performing Arts

**What is Interact's approach?**

**PERFORMING ARTS**
- Devised Theater: 5.5 hours/day, 3-5 days/week
- Dramaturgy: Studying visual, audio, and print media and discussing as a company
- Performance creation: Character building, plot development, and script-writing through improv and theater exercises
- Intensives*: 6 intensives/year
  - Improv
  - Articulation
  - Movement
  - Singing
  - Sometimes taught by guest artists

**SERVICES COORDINATION**
- Daily needs and Adult Day compliance
  - Individual care:
    - Each artist has an Interact advocate
  - Transportation
  - Medication
  - Coordination with case manager
  - Finance management
  - Communication with housing provider
- Adult Day compliance:
  - Monthly goal-setting and check-ins
  - Yearly meeting with case manager
  - Daily physical exercises
  - Adult Day billing
  - Up-to-date disability risk and management plan

**VISUAL ARTS**
- Guided artistic development: 5.5 hours/day, 3-5 days/week
- Workshops*: 4 workshops/month
  - Various media, such as watercolor, ceramics, and others
  - Sometimes taught by guest artists
- Group critiques: 1 session/week
  - Discussing artists' own and others' work

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**What does Interact do?**

**THEATER PRODUCTIONS**
- 2 full theater productions each year (all Interact performing artists are featured)
- 20 performances for each production (40 performances total each year)
- About 10 hours per year (1-2 performances and 1-2 workshops per tour)

**RESIDENCIES**
- 2 domestic or international residencies per year at schools, hospitals, or art organizations
- About 3 weeks of arts learning and 2 performances or exhibitions per residency

**VISUAL ART EXHIBITIONS**
- 2 Interact exhibitions each year (all Interact visual artists are featured)
- About 12 additional exhibitions at which Interact artists are featured (1-2 Interact artists are featured per exhibition)

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**What is Interact's impact?**

**IMPACT FOR INTERACT ARTISTS**
- Artistic impact
  - Improved artistic skills
  - Increased knowledge of art form(s)
- Impact on artists' sense of self
  - Artist identifies as an artist and positive contributor to community
  - Increased self-esteem or self-worth
  - Increased confidence/Increased self-determination to learn and try new things
  - Improved ability or capacity/Increased autonomy
- Social impact
  - Improved sense of belonging or social acceptance
  - Deepened social network/More relationships with others
  - Improved relationships with family and friends
  - Increased socialization/Increased interactions with others
  - Improved social skills/Improved communication skills
  - Increased interactions with wider community

**IMPACT FOR GUEST ARTISTS**
- Artistic impact
  - Increased knowledge of art form(s)
- Understanding of disability
  - Improved perception of disability
  - Increased understanding of disability

**IMPACT FOR AUDIENCES**
- Artistic engagement
  - Engaged by art/Recognizes value in art
- Understanding of disability
  - Improved perception of disability
  - Increased understanding of disability

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**What are Interact's values?**

**RADICAL INCLUSION**
Interact produces excellent art because of its artists' diverse ability levels -- artists with and without disabilities, from the mainstream and the margins, create art together.

**PROFESSIONAL QUALITY**
Interact holds its artists to professional standards in artistic output as well as in behavior and conduct.

**FOCUSED ON STRENGTHS**
Interact recognizes and builds on each artist's individual creativity, potential, and ability.

**ENRICHING LENS OF DISABILITY**
Interact values the unique perspective of its artists with disabilities, and highlights that perspective through theater performances and visual art exhibitions.
Appropriate sample

Categorization

Saturation

Replication

Confirmation

(Negative cases)
## Theater Mu – theory of change “learning overview”

<table>
<thead>
<tr>
<th>What we want to know</th>
<th>Mu’s approach to making art</th>
<th>What Mu does</th>
<th>The impact of Mu’s art</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The context of Mu’s work</strong></td>
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<td></td>
<td></td>
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<tr>
<td>The experience of Asian Americans in Minnesota</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>The experience of Asian Americans in the theater community</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Mu’s approach to making art</strong></td>
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<tr>
<td>How does Mu choose what it produces?</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>How does Mu develop its programs/productions?</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>What Mu does</strong></td>
<td></td>
<td></td>
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<tr>
<td>Productions and artist development</td>
<td>X</td>
<td></td>
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<td>Community outreach and residencies</td>
<td>X</td>
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<tr>
<td>Corporate training and retention</td>
<td>X</td>
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<tr>
<td><strong>The impact of Mu’s art</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>For Asian American audiences / community</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>For audiences who are not Asian American</td>
<td>X</td>
<td></td>
<td>X</td>
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<tr>
<td>For students</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>For Mu artists/artists that participate in MTI</td>
<td>X</td>
<td></td>
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<tr>
<td>For corporate training participants/corporate partners</td>
<td></td>
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<td>X</td>
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</tbody>
</table>
Focus group study – saturation observed

The issues behind the outcomes for Somali, Hmong, American Indian, and African American welfare participants

<table>
<thead>
<tr>
<th>Cultural population</th>
<th>Metro groups</th>
<th>Non-metro groups</th>
<th>Total number of groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>4 Minneapolis</td>
<td>3 Leech Lake Reservation</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>3 Duluth</td>
<td>2 Red Lake Reservation</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>4 Minneapolis</td>
<td>2 Duluth</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>3 St. Paul</td>
<td>2 Rochester</td>
<td></td>
</tr>
<tr>
<td>Hmong</td>
<td>3 Minneapolis</td>
<td>1 Winona</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>4 St. Paul</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somali</td>
<td>4 Minneapolis</td>
<td>2 Rochester</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>3 St. Paul</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28 groups</strong></td>
<td><strong>12 groups</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>
Collecting and analyzing data concurrently

What I want to know

What I know

Collecting and analyzing data concurrently
**Example – iterative data analysis**

- **Interact Center’s theory of change – a 6-month consultation project**

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Before Interact</th>
<th>During Interact</th>
<th>Interact’s impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artists</td>
<td>Why do these stakeholders begin their journey with Interact? How do these stakeholders begin their journey with Interact?</td>
<td>What are the major activities that these stakeholders experience while involved with Interact? How do these activities highlight the values or messages of Interact?</td>
<td>How are these stakeholders changed because of their involvement with Interact? How are these changes connected to Interact?</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audiences</td>
<td></td>
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</tbody>
</table>
Thinking theoretically

“Inching forward without making cognitive leaps.”

- Ideas generated from the data are reconfirmed with new data
- Constantly checking and re-checking
(if applicable) Theories should:

- Be developed by moving deliberately between a micro perspective of the data and a macro theoretical understanding

- What does this mean for program improvement? (in our applied world)
Bush Prize community innovation theory

Community
- Sharing ownership
- Committing to community

Innovation
- Fostering creativity
- Learning from failure
Combining a priori and grounded theory

**SUMMARY**

The issues behind the outcomes for Somali, Hmong, American Indian, and African American welfare participants

**Codes based on data**
- Alternative to job
- Child care
- Disability (self)
- Family needs
- Health care
- Housing
- Job quality
- Language
- ... and others

**A priori codes/structure**

- **Location of factor**
  - Personal
  - MFIP
  - Employers
  - Community

- **Kind of effect**
  - Helped
  - Hindered
  - No effect

- **Goal or accomplishment**
  - Get/keep job
  - Exit MFIP
  - Survive/stay even
  - Other
In summary

- Strategies to improve reliability and validity need to be done during the research process
  - Post hoc processes can assess reliability and validity but they can’t improve them
  - “Reliability and validity are actively attained, rather than proclaimed by an external reviewer.”
- Be proactive!! Take responsibility and own your rigor!
  - Lack of investigator responsiveness is the greatest threat to validity in qualitative research
Wrap-up

- Questions – feel free to email us (or tweet)!
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  - Ryan: ryan.evans@wilder.org
  - Brian: brian.pittman@wilder.org

Thank you!!