Mixed Methods to Address Wicked Problems

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Challenging Times, Wicked Problems, and Optimism

• Dysfunctional political parties, rampant factionalism, immature politicians (Weekend Australia, Nov 25-26, 2017)

• Countries across Southeast Asia have shown signs of increasing human rights violations or moves away from democracy. (Washington Post, 8 Sept 2017)

• Wicked Problems: No known or agreed upon solutions, complex, require interdisciplinary teams, time is running out

• Optimism: What is the other choice?
What’s mixed methods research got to contribute?

Optimism based on a shift in the assumptions that guide our work as researchers
How can transformative mixed methods contribute?

• Strengthens credibility of evidence
• Critical cultural perspective
• Inclusion of diverse stakeholders and their experiences
• Orientation towards constructive action
Paradigms: Four Assumptions

• Axiological: Nature of Ethics

• Ontological: Nature of Reality

• Epistemology: Nature of Knowledge & Relation Between Knower & That Which Would Be Known (Researcher and Stakeholders)

• Methodology: Nature of systematic inquiry
Role of the Researcher

Is research transformational for democratic purposes or managerial and/or political affirmation masked as objective/independent/credible?

Change agents: Advancing the global SDGs by ensuring the right to evaluation by all. Indran Naidoo, AEA November 2017, Washington DC
Shifting to a Transformative Stance: Axiology, Values, Ethics

• Designing studies that recognize the interconnectedness of all of us, living and nonliving, from the past, present and future
• Designing studies that address the linkage between different types of justice
• Using transformative mixed methods to bring to visibility the values that are driving societal decisions
• Designing studies that lead to transformative action
Type of Justice

Social

Economic

Environmental
What is the meaning of transformation?

- Personal
- Social
- Environmental
- Economic

Depends on who you ask
<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axiology</td>
<td>Cultural respect; promote social, environmental and economic justice &amp; human rights; address inequities; reciprocity; resilience; interconnectedness (living and nonliving); relationships</td>
</tr>
<tr>
<td>Ontology</td>
<td>Multi-faceted; consequences of privilege; historically situated</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Interactive; trust; coalition building</td>
</tr>
<tr>
<td>Methodology</td>
<td>Transformative, dialogic, culturally responsive, mixed methods; policy change</td>
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</tbody>
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Transformative Axiology: Context Analysis

1. How can mixed methods be used to
   • identify the cultural norms and beliefs that might be operating in the community
   • identify dimensions of diversity associated with discrimination and oppression and associated power structures

2. How would you take into account the expertise, knowledge, and strengths of the community in order to provide a platform for authentic engagement between the researcher and the community?
Transformative Ontological Assumption

• Recognizes that different versions of reality exist;
• All versions of reality are not equal;
• Recognizes privilege given to what is perceived to be real based on: social, political, cultural, economic, ethnic, gender, religion, indigeneity, refugee/immigrant status, and disability positionality;
• Interrogates versions of reality that sustain oppressive systems;
• Makes visible versions of reality that have the potential to further human rights
Making Versions of Reality Visible: Mining in Australia and Palm Oil Production in Indonesia

- Indigenous land rights
- Prevention of pollution
- Slow down the destruction of the coral reef because of increased carbon emissions
- Loss of agricultural land
- Protect forests
- Water security
- Well-being
- Reduce gap between rich and poor

- Jobs
- Energy
- Economic growth
- Profit


Adani coal mine: Premier digs in for regional jobs

Steven Wardill, The Courier-Mail March 25, 2017
Transformative Mixed Methods and Different Versions of Reality

• Use mixed methods to:
  • Identify, support and include diverse participants, so that you can reveal different versions of reality, including their basis in terms of privilege and power
  • Contribute to the change in understandings of what is real
Transformative Epistemological Assumption

- Establishment of an interactive link between the researcher and participants;
- Acknowledges that knowledge is socially and historically located;
- Explicit acknowledgement of power inequities;
- Development of a trusting relationships
- Build effective political coalitions
Epistemology: Knowledge is Social and Historically Located

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Epistemology: Building Coalitions Papua New Guinea Mining

- 1967: Soeharto government signed contract with Freeport McMoRan
- Freeport’s power: economic growth, job creation, taxes paid to Indonesia
- Indigenous people protested; workers went out on strike
- UN Declaration on the Rights of Indigenous People
- UN Norms on the Responsibilities of Transnational Corporations and other Business Enterprises with Regard to Human Rights
- Formalized into organizations, such as LEMASA (Amungme Tribe Council) and LEMASKO (Kamoro Tribe Council) (Soares 2004). They also forged alliances with other indigenous communities in Aliansi Masyarakat Adat Nusantara (Alliance of Indigenous Peoples of the Archipelago)
- UN Working Group on Indigenous Populations; worked with Australian Council for Overseas Aid; Established an office in Port Vila to coordinate efforts
- Lawsuit against Freeport for cultural genocide
- Freeport: Social, employment and Human Rights Policy and internal code of conduct principles; International Congress and Convention Association audit compliance; Voluntary Principles on Security and Human Rights with NGOs; signed ISO14001 environmental standards; audit PT.SGS International
- Established 1% Trust Fund; Amungme and Kamoro granted Land Rights Trust Fund – share in the mine; August 2017 – transfer majority share to Indonesia
Transformative Mixed Methods Epistemology

• Use mixed methods to:
  • Address power differentials in the stakeholder groups
  • Give voice to the less powerful
  • Establish trusting relationships
  • Build effective coalitions for political action
Transformative Methodological Assumption

• Develop a culturally responsive cyclical approach
• Engage appropriately with diverse stakeholders
• Conduct contextual analysis
• Develop interventions that are culturally responsive
• Facilitate use of the research findings for social transformation, including policy implications
## Transformative Mixed Methods

<table>
<thead>
<tr>
<th>Build relationships</th>
<th>Contextual analysis</th>
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</tr>
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<tbody>
<tr>
<td>Review literature</td>
<td>Focus groups, surveys, extant data, literature, GIS mapping</td>
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<tr>
<td>Individual and group consultation</td>
<td>Identify value positions</td>
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</tr>
<tr>
<td>Develop working strategies</td>
<td>Develop intervention</td>
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</tr>
<tr>
<td>Pilot intervention</td>
<td>Observations, interviews, photo voice, focus groups, surveys, pre/post data collection, team meetings</td>
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<tr>
<td>Implement intervention</td>
<td>Similar data collection as for pilot</td>
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</tr>
<tr>
<td>Determine effectiveness</td>
<td>Post data collection (indicators, artwork, poetry, photos, mapping)</td>
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<tr>
<td>Use findings for transformative purposes</td>
<td>Use for policy change</td>
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<tr>
<td>Use to refine intervention</td>
<td>Use to improve and expand relationships</td>
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Transformative Research Agenda

- Meaning of transformation: live in harmony with nature and each other, economic sustainability, control research process
- Korea:
  - Natural ecosystem – energy and pollution → harmony
  - Social ecosystem – polarization, gaps → human dignity
  - Technological ecosystem: industry, unemployment improved quality of life and economic development
Korea and Environmental Research (Jung et al. 2013)

- Research on eco-industrial parks
- Quantitative
  - Economic
  - Environmental
  - Social
Transformative Mixed Methods in Korea

**Phase 1**
- **Qual:** Identify stakeholders; build relationships; analyzing documents
- **Quant:** Identify available demographic and environmental data

**Phase 2**
- **Qual:** Interviews, focus groups, town meetings
- **Quant:** Establish baseline for pollutants and health status

**Phase 3**
- **Qual:** Develop interventions based on stakeholder input
- **Quant/Qual:** Pilot test interventions & data collection

**Phase 4**
- **Quant:** Process assessment of implementation; pretests
- **Qual:** Observe and interview stakeholder groups during intervention

**Phase 5**
- **Quant:** Post-test measures
- **Qual:** Interviews, observations, policy planning
Conclusions

• Courage
• Mixed Methods: Capture complexity, address social justice, and ethics
• Teams – researchers and coalition
• Capacity development
Resources


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