Agricultural Systems Research Workshop

Overview of tools for systems research: Qualitative research

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Overview of tools for systems research: Qualitative research

What role can qualitative research methods play in agricultural systems research?

What is agricultural systems research?

What is qualitative research?

What tools does qualitative research offer for systems research?
What is agricultural systems research?

“At the core of sustainable agriculture research is the application of a systems approach to research that aims to understand how a complex system functions as a whole...This approach recognizes that agricultural systems are complex and that interaction among components determines characteristics of the system...[B]ecause of this complexity, agricultural systems need to be studied intact. Researchers may design systems research to study processes at different spatial and temporal scales”.

*From SSARE RFP Summer 2009 (p.1)*
*Emphases added*
What is agricultural systems research?

- understand how a complex system functions as a whole
- interaction among components determines characteristics of system
- systems need to be studied intact
- study processes at different spatial and temporal scales
What is qualitative research?

A long history of qualitative research in the social sciences

- Anthropology
- Sociology
- Geography

Characteristics of qualitative research include:

- Natural field settings
- Holistic mode of inquiry
- Data collected as words or images
- Inductive analysis, with attention to particulars
- Focus on research participants’ perspectives/meanings

*From Creswell (1998:16)*
Qualitative research explores situated perspectives of participants

Qualitative data collected is grounded in participants’ situated knowledge, experiences, perspectives, aspirations.

Contribution to a systems approach is that it makes the system legible from the perspective of its participants/members.
Use of qualitative data and analytical techniques is suited to particular intellectual goals

Used to ask questions about:

- Context
- Meanings
- Processes
- Causes
- Unanticipated Phenomena
For example...

**Context**
Under what **contextual conditions** do farming innovations spread (that enable a shift toward sustainable agriculture)? (Ellis)

**Meanings**
How do conventional farmers who have converted to sustainable agriculture understand and **represent this shift** in farming practices?

What does it **mean to them** to have made this shift?

How do they **interpret the significance** of this process?
Processes

What factors (internal and external) guide the sequence by which conventional farmers convert to sustainable agriculture?

Whether they convert piecemeal or all at once, how and why do they do so? What factors shape that decision?

How do consumers become invested in supporting sustainable agriculture?
Causes/Effects

**Why** do conventional farmers shift to sustainable agriculture?

**What factors shape the success or failure of virtual farmers markets?**

Unanticipated Phenomena**

**Why** are farmers reverting from sustainable practices back to conventional farming methods?
**Key points:**

- Each of these questions *needs refinement* and delimitation within particular purpose, scope and conceptual framework for research.
- Qualitative & quantitative methods can be *mixed* in different ways
- Each requires gathering qualitative data *directly from people.*
- The data collected is likely to be *rich, multi-layered, complex.*
Data Collection

Observation/Participant Observation
insider/outsider

Interviews
structured, semi-structured, open-ended

Focus Groups
mixed, homogenous by given criteria

Surveys
mail, phone, in-person (researcher completes)

Questionnaires
phone, in-person, internet (participant completes)
Sample Semi-structured Interview Questions (Merchants of locally grown products)

1. What products do you carry that are "locally grown"? Where do you get those products from?

2. Have you always carried locally grown products? If so, why? Or, if not, when and why did you begin to carry locally grown products? Who were the decision makers? Was there much debate? What were the perceived negatives of carrying locally grown products? Where consumers considered when making this decision?

3. Have the types of "locally grown" goods you sell changed? If so, what do you think is the cause, changes in production, or a change in consumer demand? Something else?

4. Who are your consumers? ---
Sample Semi-structured Interview Questions (Merchants of locally grown products)

5. Has your commitment to “locally” grown food impacted your ability to meet demand? Do you have enough suppliers to meet your consumer demand? --

If so, do you foresee a problem in the future? Are there certain products for which you are more concerned about demand outgrowing supply?... Have you talked to suppliers about increasing supply? Have you attempted to locate other suppliers?

6. How do you define locally grown? Is there a boundary by which you define local? Is this boundary different depending on the product? How did you create your definition of “local”?
Data Analysis

Inductive
Iterative
Labor intensive
Tailored to needs of project

Constructivist
(Interested in meanings)

Text

Critical
(Interested in power)

Context
Qualitative research
Is grounded in participants’ situated knowledge, experiences, perspectives, aspirations.
Can make the system legible from the perspective of members.

- No participant operates with full knowledge of a given system
- Decisions made based on situated and partial knowledge.
- In order to better understand dynamics of a system, it is important to understand how that system is understood and affected by the people in it.
- Also important to know how participation in the system affects its participants, in order to better anticipate their actions, etc.
- Especially useful for understanding systems in flux, systemic or social change
Thank You