Systems Approach and Qualitative Methods in Food Related Research

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ANH Academy Week
June 2016
Session Plan

• Introductory discussion and background
• Introduction to Food Systems approach and mapping
• Introduction to qualitative research

Lunch break

• Group activity:
  – mapping a food system challenge
  – devising a research plan with detailed qualitative component

• Feedback/wrap-up
Discussion

(10 minutes)

• Why did you come to this workshop and what do you want out of it?

• Have you had any particular challenges in your work that you think qualitative research and/or food systems could help with?

• What is your understanding of qualitative research?

• What is your understanding of food systems approach?

One person to report top 2-3 points at end
Introduction

• Why a systemic approach?
• What is, and what is valuable about, qualitative research?
• Why is it not used more?
• What are the common tensions between disciplines and between quantitative and qualitative approaches, that hinder meaningful collaboration?
• How do we go about integrating them?
Food Systems

• Holistic approach

• Consider: Inputs, Actors, Activities, Drivers/Influencers, Outcomes (unintended?)

• Map all the parts, understand the network of relationships

• Tools to map

Global Environmental Change and Food Systems (GECAFS)
Food Systems include a set of ‘Activities’...
... all of which are conducted by a range of ‘Actors’ ...

... all of whom have a range of motives ...
... and who all operate within a range of ‘environments’.
‘Outcomes’ of the Actors’ Activities underpin food security …

“… exists when all people, at all times, have physical, economic and social access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”
Food Security, i.e. stability over time for:

- **FOOD UTILISATION**
  - Nutritional Value
  - Social Value
  - Food Safety

- **FOOD ACCESS**
  - Affordability
  - Allocation
  - Preference

- **FOOD AVAILABILITY**
  - Production
  - Distribution
  - Exchange

... but also a range of other outcomes.

**Socioeconomic Outcomes**
- Income
- Employment
- Profit
- Social capital
- Political capital
- Human capital
- ...

**Environmental Outcomes**
- Climate change
- Water availability
- Water quality
- Biodiversity
- Biogeochemistry
- Soil degradation
- ...

**Health Outcomes**
- Human health
- Animal health
- Food safety
- ...

...
Food Systems Approach

- Holistic approach

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Global Environmental Change and Food Systems (GECAFS)
Examples of some food systems maps...

**Fig 2.2 The food system, its inputs, outputs and influences**

- **Energy inputs**: Fuels
- **Labour**: Skills, livelihoods
- **Environmental 'gives'**: eg climate, water, land, biodiversity
- **Socio-cultural influences**: eg religion, gender, family
- **Economic drivers**: eg price, profits, trade

**INPUTS**
- Agrochemicals, pharmaceuticals, equipment, seeds

**PRIMARY PRODUCTION**
- Farming, fishing, horticulture, plantations

**PROCESSING & MANUFACTURE**
- Craft / large factories

**DISTRIBUTION & LOGISTICS**
- National / international, import/export

**RETAIL**
- Markets, shops, supermarkets

**FOODSERVICE**
- Catering, cafes, restaurants, public sector

**DOMESTIC FOOD PREPARATION**

**CONSUMPTION**

- Cultural impact
- Social impact
- Public health & nutrition outcomes
- Waste & biological outflow
- Energy & material outflow and emissions

**ENVIRONMENT**
- Production and packaging
- Distribution and retail
- Consumption

**FOOD SYSTEM**

**PUBLIC HEALTH NUTRITION**

- Resource supply (water, energy, soil, nutrients, biodiversity)
- Climate
- Food supply and consumption (quantity, quality, composition, variety, safety)

- Resource demand (water, energy, soil, nutrients, biodiversity)
- Waste (inefficient resource use, greenhouse gas emissions)
- Food demand

**Training & education**

**Research, development, engineering & technology**

**Finance capital**

**Public health, hygiene controls, risk management**

**Consciousness industries, eg advertising, media**

**Civil society organisations**

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**Fig. 1 Conceptual framework of the environment–public health nutrition relationship**
### DRSP tool

<table>
<thead>
<tr>
<th>4 Interrelated Patterns of Thinking...</th>
<th>Consisting of 2 contrasting elements...</th>
<th>Framing Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Making Distinctions</strong></td>
<td>identity ↔ other</td>
<td>• What is ____?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• What is not ____?</td>
</tr>
<tr>
<td><strong>Organising Systems</strong></td>
<td>parts ↔ whole</td>
<td>• Does ____ have parts?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Can you think of ____ as a part?</td>
</tr>
<tr>
<td><strong>Recognising Relationships</strong></td>
<td>cause ↔ effect</td>
<td>• Is ____ related to ____?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Can you think of ____ as a relationship?</td>
</tr>
<tr>
<td><strong>Taking Perspectives</strong></td>
<td>point ↔ view</td>
<td>• From the perspective of ___________, [insert question]?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Can you think about __________ from a different perspective?</td>
</tr>
</tbody>
</table>

*Adapted from: Cabrera, D. and Colosi, L. (2009)*
System mapping a food issue
Example: Malnutrition interventions in Guatemala

- **Inputs**: nutritional science knowledge, health care services, governmental assistance, international development assistance, formulated fortified foods, food aid from the USA

- **Actors**: consumers/patients (men, women, children), medics, health centre assistants, community health leaders, government policy makers, nutrition supplementary feeding developers, development specialists, etc.

- **Activities**: giving food aid, measuring children, giving talks, delivering workshops, training community members, developing foods, labouring on farms, procuring food, preparing food at home, consuming/sharing food, disposing of food, treating illness, measuring outcomes, etc.

- **Drivers/Influencers**: racial discrimination, socio-economic inequalities, poverty (lack of income, hygiene, disease), gender dynamics (gender roles, inequality, control over finances, influence over food choices and education), food preferences (cultural identity), prestige of meat over fruit and vegetables, expense of cash crops, lack of land and autonomy, lack of stability

- **Outcomes**: contamination from waste, shame of malnourished family, “ignoring” advice, domestic abuse...
Qualitative versus Quantitative Research

Deductive and inductive reasoning

Deduction (typically quantitative):

Theory → Hypothesis → Observation → Confirmation

Induction (typically qualitative):

Observation → Pattern → Tentative hypothesis → Theory
Main Methods

• Participant observation
• Interviews (semi-structured)
• Surveys/questionnaires
• Focus groups
• Oral histories/life stories
• Archival and other documentary sources
• Photography and video
Considerations:
relationships and power dynamics

- Research participants
- Research assistants
- Researchers
Data Analysis

• Close reading of ‘fieldnotes’ and other data
• Qualitative analytic coding to identify key categories/concepts
  - Open coding
  - Focused coding
• Build up layers of themes
  (incorporating wider historical and socio-political context)
• Theoretical memos (tentative)
• Theoretical proposition
Why use qualitative research?

• Accessibility
• Reduces “reactivity”
• Increases relevance of survey questions
• Creates intuitive understanding
• Fuller picture of complex problems
• Explanations for inconsistent data
• Many complex research problems require it
Examples

• Malnutrition in Guatemala (Lauren Blake)

• Women’s Work, Food and Household Dynamics in northern Mozambique (Sara Stevano)

• Small-scale farming as a livelihood strategy in chronic unemployment in rural South Africa (Lizzie Hull)
Drawbacks

• Time-consuming (resources)
• Time scales can be incommensurable
• Sampling and representativeness
• Inadequate to capture magnitude of phenomena
• Different qualitative methods may yield different results
• Consistency
• Unearths inconvenient and messy truths
• No quick-fix solutions
• Different methodologies make it a challenge to work across disciplines
Lunch!
Activity – devise a research plan to tackle an issue
Food Mapping

(20 mins)

• Identify a problem or research project you are familiar with

• Consider: what are the methodological challenges?
  Why might a systems approach be needed?

• Contextualise it wholly: map the issue into a Food System diagram

• Include all the various parts, pathways and feedback loops you can think of
  Remember: Inputs, Actors, Activities, Drivers/Influencers, Outcomes
  (including unintended/unwanted)
Add methodological approaches

(20 mins)

• Where do the main problems lie?

• What are the methodological challenges to address them?

• Which methods are suitable and where do they best fit on the map?

• What can be addressed with your own expertise?

• What can be addressed with other methods? Add the methods (incl. qualitative) to the map. (detail to come)
Qualitative component

(20 mins)

• Identify the qualitative methods (Participant observation, Interviews, Questionnaires, Focus groups, Oral histories/life stories, Archival/Documentary sources/Photography/Video)

• Design a more detailed research plan incorporating them

• Make sure you consider constraints (e.g. time, who, relationships, resources needed, when, etc.)

• How/when/where to incorporate with the other methods

• Feed back/present the research plan
Thank you also to input from SOAS/LCIRAH colleagues, notably Dr Lizzie Hull, and IFSTAL colleagues.

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Timings/Plan

• Welcome and practicalities (5 mins)

6x groups of 6-7 if 40, 6 or 7x groups of 8 if 50

• Introductory discussion (10 mins + 10 mins) – one person to report top 2-3 points

• Background/intro (5 mins)

• Introduction to Food Systems approach and mapping (20 mins)

• Introduction to qualitative research (30 mins)

• Q&A (5 mins)

• Introduce activity – think of a problem over lunch (5 mins)

Lunch break

• Welcome back, intro to activity (5 mins)

• Group activity:
  – mapping a food system challenge (20 mins)
  – add methods to appropriately address various parts (20 mins)
  – focus on and detail qualitative component (20 mins)

• Feedback/wrap-up (20 mins) (1 person per group)