How a complete network study gets done? (see classnote4)

1. Choosing a topic and substantive focus
2. Choosing relations
3. Building an instrument
   - Field testing
4. Specifying the network – realist approach
   - Universe
   - Central informants
   - Reducing the list
   - Broader informants
   - Final decisions
5. Completing the instrument – filling in the blanks
How a complete network study gets done? (see classnote4)

6. Getting past the IRB
   ▫ Third party issues
   ▫ Sensitive data issues
   ▫ Unfamiliarity with network data

7. Data collection
   ▫ Interviews vs. surveys: the need for completeness vs. the need for speed
   ▫ Scheduling
   ▫ Interview protocols
   ▫ Vagaries of in-person interviews

8. Data entry and management
Example: Provan et al. (2005)
“The use of network analysis to strengthen community partnership” in PAR

1. Choosing a topic and substantive focus

• Chose community partnerships/networks of collaborating public & nonprofit orgs. in the provision of health and support services for chronic disease in Arizona
  - (e.g., like diabetes, cancer, heart disease, asthma, arthritis, mental illness, or substance abuse.)
Example: Provan et al. (2005)
“The use of network analysis to strengthen community partnership” in PAR

2. Choosing relations

- four types of involvement your organization might have with these other agencies.
  - exchange of information
  - through shared resources (joint funding, shared equipment or personnel, shared facilities, etc.),
  - or through patient/client referrals (either sent or received or both) between your organization and the agency listed.

- Based on your theory, you can think of other attributes or outcome variables as well. -> developing measures
Example: Provan et al. (2005)
“The use of network analysis to strengthen community partnership” in PAR

3. Building an instrument

• Handout of instruments
  ▫ Explanation of networks
  ▫ Four types of links
    • Relationship quality (4-Liker scale) about trust
      ➢ 1 = poor relationship (little trust),
      ➢ 2 = fair relationship (some trust),
      ➢ 3 = good relationship (trust),
      ➢ 4 = excellent relationship (high trust)

• They used outcome variables about
  ▫ Benefits of networks
  ▫ Drawbacks of networks
  ▫ Very context specific benefits/drawbacks, NOT general ones
Example: Provan et al. (2005)
“The use of network analysis to strengthen community partnership” in PAR

3. Building an instrument

- Before distributing this instruments, WE need a “FIELD TEST” of instruments!!!
  - Theory might not work in practice.
  - Let’s visit this issue later.
Example: Provan et al. (2005)
“The use of network analysis to strengthen community partnership” in PAR

4. Specifying the network

• This paper did not talk about it because it’s out of the purpose of the study (i.e., introducing a network analysis as a tool to examine community partnership)

• But, Ning and Terence already talked about network boundary issues:
  ▫ Laumann, Marsden and Prensky (1989)
  ▫ Marsden (2005)
Example: Provan et al. (2005)
“The use of network analysis to strengthen community partnership” in PAR

4. Specifying the network

- What are the two perspective for the boundary specification?
- What are the three foci (or approaches) for delimiting actors?
### Boundary specification: Nominalist and Realist Perspectives

<table>
<thead>
<tr>
<th>Nominalist</th>
<th>Realist</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ analyst’s self-consciously imposing a conceptual framework constructed to serve analytic purposes</td>
<td>□ focusing on actor set boundaries and membership as <em>perceived by the actors themselves</em></td>
</tr>
<tr>
<td>□ relative boundaries by the purposes of the investigator</td>
<td>□ phenomenalist conception of facts</td>
</tr>
</tbody>
</table>
### Illustrative Boundary Specification Strategies

<table>
<thead>
<tr>
<th>Meta-Theoretical Perspective</th>
<th>Positional approach</th>
<th>Participation in event or activity approach</th>
<th>Relational approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominalist Perspective</strong></td>
<td>e.g., using formal club membership to create club network</td>
<td>e.g., I can observe who showed up 3 or more days in Thursday policy lunch in Spring 2013.</td>
<td>e.g., Small world study (researcher chose ‘starter’ &amp; ‘target’)</td>
</tr>
<tr>
<td><strong>Realist Perspective</strong></td>
<td>e.g., Perceived club networks by members</td>
<td>e.g., I can ask regular attendants in the policy lunch to draw their boundary.</td>
<td>e.g., policy network studies</td>
</tr>
</tbody>
</table>
Boundary specification example: policy network study by Laumann and Knoke (1989)

4. Specifying the network
   ▫ Their relational focus is policy communication relations.
   ▫ The Question is:
     • “With whom your organization regularly or routinely discusses national health policy matters?
   ▫ Let’s talk about boundary specification!
Boundary specification example: policy network study by Laumann and Knoke (1989)

4. Specifying the network
   1) Create a naïve list through searching media/archival source
      • Newspapers and magazines; health-related hearings; lobbyists registrations and etc.
      • "900" organizations in a national health policy net.
   2) Reducing the naïve list to core policy actors list
      • Based on the criteria that core members appear five or more times across the combination of sources
      • "156" organizations
      • "151" organizations after adjusting the list (e.g., subsidiaries, mistakes)
   3) Asking 151 orgs. to add additional orgs not on the list
      • No additional orgs. were mentioned by more than four informants.
Boundary specification example: policy network study by Laumann and Knoke (1989)

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Q: What is their boundary specification perspective?

**Realist perspective**
Boundary specification example: policy network study by Laumann and Knoke (1989)

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Realist perspective
Boundary specification example: policy network study by Laumann and Knoke (1989)

4. **Specifying the network** (Laumann & Knoke, 1989, national health policy network)
   - **Handout: Appendix D**
     - p.485-490
       - Looked over national health policy domains based on major historical policy actions
       - E.g., (p.490) Drug regulation
     - P. 495-499 List of policy actors in health policy domains (e.g., professional associates, general interest groups, federal government, legislative branch and etc.)
How a complete network study gets done? (see classnote4)

5. Completing the instrument – filling in the blanks
   - As we have the actor list, we can insert this list into our instrument sheet.
   - E.g., see Provan et al. (2005) instrument sheet
     - Agency A
     - Agency B ....
How a complete network study gets done? (see classnote4)

6. Getting the IRB
   • Everyone is familiar with IRB?
How a complete network study gets done? (see classnote4)

6. Getting the IRB

- Everyone is familiar with IRB?
- IRB = Institutional Review Board that governs the use of human subjects for Research.
- To do a human subject research, IRB approval is required.
- Also, we have to complete the required human subjects training before IRB approval.
  - You can do an online training here:
    - CITI: collaborative institutional training initiative
    - https://www.citiprogram.org/Default.asp?
How a complete network study gets done? (see classnote4)

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How a complete network study gets done? (see classnote4)

6. Getting the IRB

- Third party issues
- Network study is examining “Relations” through “Me”.
  - In practice, I have to say about “myself” (=subject) as well as “others” (=third parties).
  - IRB guidelines specify that “third party”, people whom research subjects give data about, should be considered research subjects.
    - E.g., 4*4 network study: we ‘d need 16 consents forms.. OMG!!
- But, Don’t worry about it now!
- IRB is familiar with network study and understand it.
How a complete network study gets done? (see classnote4)

7. Data Collection

• Interview vs. survey
  ▫ Interview: high response rate (if they accept the invitation) + gain rich contextual information
  ▫ Survey: might get low response rate + deal with large size of network
    • We can use the survey monkey 😊
      • http://www.surveymonkey.com/
Welcome!

First of all, thank you for participating in the survey. This study will help us understand how students adjust to social environments through interaction with other people.

It should take about 10 minutes to complete. Your answers will not be shared with anyone else, and your grade in PAD 507, PAD 508, or other courses will not depend on your participation in or answers to the survey.

If you have any reservations about completing the questionnaire, please contact Karl Rethermeyer (kretherme@albany.edu).
1. Here is the list of faculty members. Please check each person you consider to be a mentor to you. Also, please specify how helpful your relationship has been.

If you DO NOT consider a person to be a mentor, please leave the row blank.

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<thead>
<tr>
<th>Name</th>
<th>1 (Not helpful)</th>
<th>2</th>
<th>3 (helpful)</th>
<th>4</th>
<th>5 (Very helpful)</th>
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<td>Mitch Abolafia</td>
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<td>Junesoo Lee</td>
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<td>Erika Martin</td>
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<td>Janet Mayo</td>
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</tbody>
</table>
How a complete network study gets done? (see classnote4)

8. Data entry and management
   • Using Excel to create sociomatrix - > import this matrix file into UCINET to analyze
   • Or,
     ▫ If you used the surveymonkey site, they automatically create the sociomatrix excel file for you.
Several issue regarding network data collection

- As Ning and Terence pointed out in their summary,
  - “Important questions of validity and reliability for survey/questionnaire data remains” (Marsden, 2005).
  - So, “field test” of instruments is really really important!!
Survey measures

• When I did my field test using Dr. Rethemeyer’s instruments in Korea,
  ▫ There was a culture-based translating problems about “confidential” information
  ▫ In his study,
    • he measured two types of information sharing to represent policy communications:
      • “routine” and “confidential” communication
  ▫ Before my field test, I had difficulty in finding “right” word for “confidential” in Korean.
Survey measures

- Dr. Rethemeyer’s operationalization of “confidential information” is:
  - Information would be damaging to you, your organization, or your organization’s political or policy agenda if it were distributed widely.

  ➢ E.g.,
  - evaluation of a person or organization’s power;
  - discussion of policy options;
  - estimation of support or opposition to a course of action;
  - discussion of political strategies;
  - and/or discussion of political or policy activity that is covert and/or in violation of the law (e.g., lobbying by registered non-profits).
Survey measures

• In my field test interview, I learned that the meaning of “confidential” is more seriously accepted by Korean policy actors than Americans policy actors.
  ▫ They have more bureaucratized culture than US does.
  ▫ Most field tested informants simply said that they never did directly translated “confidential” information sharing with anybody.
  ▫ Even some said that they don’t have any “confidential” information. 😞
• In sum, the direct translation of “confidential” in Korean is not similarly accepted to Korean policy actors as American policy actors do.
• So, after discussing with Dr. Rethemeyer about this,
  ▫ whenever I interviewed policy actors, I had to explain the definition of “confidential” in Korean;
  ▫ Added more explanation about the sense of trust-based communication in referring to the concept of “confidential” information
Survey measures

• Validity issues always matters in using instruments. Field test is helpful to reduce validity problems of our instruments.

• Another episode about validity issue....
• In the *political network conference* last year, I presented a network paper using Dr. Rethemeyer’s data set.
  ▫ Dr. David Knoke (one of author of “The Organizational State” and Dr. Rethemeyer’s instruments came from this book) asked me the validity issues about the concept of “confidential” information,
  ▫ I had to simply say that
    • “Sorry, I did not collect this data set.”
Measures of Collaboration

• Regarding the issues of validity and measures,
  ▫ Robins and Gaddis (2012) did an interesting study to examine different measures of “collaboration” in disaster situations.


- Reviews two previous measures of collaboration
- Meier & O’Toole (2005)
  - Survey of collaboration in Texas public school districts
  - The survey asked respondents about the frequency of their interactions with various groups, including other school district superintendents, school principals, local government officials, and private businesses.
    - They believed the importance of repeated interaction across time.

- Reviews two previous measures of collaboration
  - They questioned the nature of collaborative relationships between local economic development agencies and their partners.
  - 5 types of collaborative relationships:
    1. information seeking; 2. adjustment seeking; 3. policymaking and strategy-making; 4. resource exchange, and 5. project based partnerships.
  - 5 types also are broken down into 2 or 6 activities
  - Activity-based, topic-dependent, domain specific measures

• Critique:
  ▫ The existing measures capture either a temporal dimension or the
  ▫ nature of the collaborative activity
  ▫ but neither set of measures captures both.
• So, they explored Collaboration Measures from a Disaster Survey
  ▫ Immediately following Hurricane Katrina,
    ▪ they designed a survey to assess
    ▪ the impact of the hurricane on school districts in Texas

- Respondents were given six categories of actors with whom they could say they collaborated:
  1) police,
  2) fire and first responders,
  3) other school districts, business organizations,
  4) nonprofit and relief organizations,
  5) community and religious organizations,
  6) and gov’t organizations/agencies.

- Each respondent is asked to identify the types of actors with which they “….. (e.g., collaborate; communicate … )”?
- So, What is the maximum number of each respondent can choose??

- each respondent was asked to identify the types of actors with which they collaborated (with no guidance as to what collaboration means)?

- each respondent was asked to identify the types of actors with which they held regularly scheduled meetings?

- Each respondent was asked to identify the types of actors with which they held in-person meetings?
- Suggested relatively many in-person meetings after disaster situation.

- each respondent was asked to identify the types of actors with which they shared information?

- Activity-based questions driven from Agranoff & Mcuire (2005)

• each respondent was asked to identify the types of actors with which they shared personnel?

• Depletable resources sharing questions

• To test whether these five measures capture which underlying primary factor,
  ▫ As we know that theoretically these five factors contribute to capturing some dimensions of collaboration
  ▫ Which statistical method do they have to use?

- To test whether these five measures capture which underlying primary factor,
  - As we know that theoretically these five factors contribute to capturing some dimensions of collaboration
  - Which statistical method do they have to use?
    - confirmatory factor analysis

- Collaboration (self-defined)
- Regular meeting
- In person meeting
- Information sharing
- Personnel sharing

- Using confirmatory factor analysis,
- They found two underlying factors
  - But, based on “which test” ?? They reduced it to one primary factor.
    - To refresh the memory in PAD 705 & statistic class
    - Please understand this situation if MPA students might not take statistic class 😊

- Using confirmatory factor analysis,
- They found two underlying factors
  - But, based on “Kaiser test”, they dropped second factor because its eigenvalue is below 1.
  - Or, we can also use “scree test” ..

- They found two underlying factors
  - But, based on “Kaiser test”, they dropped second factor because its eigenvalue is below 1.
  - Or, we can also use “scree test”. Remember this graph??

- Collaboration (self-defined)
  - Regular meeting
  - In person meeting
  - Information sharing
  - Personnel sharing

• At any way, from this, they found that collaboration (propensity) can mean different things.

• A large number of respondents reported some collaboration.
  ▫ Information was shared with a diverse network of partners.
  ▫ However, few of these collaborative partnerships involved regular meetings or sharing of personnel.

• The bottom line is that “measurement strategies matter and such choices should be both deliberative and checked for robustness.”
Any Questions?