Mapping Network Structure in Complex Community Collaboratives

TEACHING NOTES

Learning Objectives
This simulation is designed to help students better understand the concept of collaborative governance by applying concepts of social network analysis, specifically network visualizations. Your class will be presented with a choice of scenarios representing community collaboratives designed to alleviate a specific social/policy issue. Using hands-on exercises, students will first create network maps of these community collaboratives, discuss a series of questions, and complete the simulation by addressing a management dilemma matched to each scenario. This network mapping simulation pairs well with both theories/concepts of social network analysis and collaboration readings in public management and not-for-profit management course work.

Roadmap for Teaching the Simulation
The simulation is designed to work in conjunction with the four scenarios described in the accompanying simulation narrative. There is no “need” to complete all the scenarios or to complete them in any particular order. Instead each scenario is meant to provide a unique collaborative context, containing a variety of management processes and dilemmas. All simulation scenarios are designed for teams of a minimum of six people. Each scenario should take from 1 hour to 1.5 hours to complete, depending on how long each team takes to complete their network maps and go through the discussions. The instructor should provide the necessary materials to each team (see details below).

This simulation was an honorable mention winner in our 2010-11 “Collaborative Public Management, Collaborative Governance, and Collaborative Problem Solving” teaching case and simulation competition. It was double-blind peer reviewed by a committee of academics and practitioners. It was written by Mark W. Davis and Danielle M. Varda of The School of Public Affairs, University of Colorado at Denver. This case is intended for classroom discussion and is not intended to suggest either effective or ineffective handling of the situation depicted. It is brought to you by E-PARCC, part of the Maxwell School of Syracuse University’s Collaborative Governance Initiative, a subset of the Program for the Advancement of Research on Conflict and Collaboration (PARCC). This material may be copied as many times as needed as long as the authors are given full credit for their work.
Directions for the simulation (pages 1 – 9 of the accompanying simulation) and the reading Use of Network Analysis to Strengthen Community Partnerships (by Provan et al. 2005) should be provided to students prior to class to read in preparation for the day the simulation will be completed in class. In addition, the day of class the instructor should present the Mapping Your Network PowerPoint presentation (provided at the end of these teaching notes) at the start of class. Presenting this PowerPoint will enable the students to better comprehend the exercise, increasing how swiftly they can get through it.

Additional readings may also be assigned as the instructor sees fit (see a list of recommended additional readings at the end of this teaching note. Additionally, discussion questions are provided to go along with these readings).

Simulation scenarios (pages 10 – 21) should be provided to students at the time of the exercise. The instructor will need to select one or more of these prior to class. The instructor should break the class into teams as your particular class dictates; however the scenarios are designed with roles for six players. If necessitated by small class size, the scenarios can also work with a smaller per-team number of students—students will simply need to take on multiple roles.

Advantage of the entire class using one simulation: Occasionally a team will struggle with the mapping exercise. If the entire class does one simulation they can collectively “compare notes”. Weaker teams can draw from the understanding provided by stronger teams. Additionally, while legitimate differences may emerge in the creation of the networks between the different teams, which can lead to excellent discussion points.

Advantage of each team in the class using a different simulation: With each team completing and presenting a different simulation the class as a whole gets broader coverage to a number of different simulation scenarios. Perhaps a particular scenario will speak to one student more than another and the variety will help to better enlighten the network mapping concept.

Be sure to have students keep notes on their coding scheme in relation to pin colors and band colors. If you are having the students complete multiple exercises, you may ask a student from each team to take a picture of their simulation with a camera phone.

Equipment for this simulation:
All supplies for this simulation should be readily available at any office supply/hobby store.
- A peg board (a piece of 10 inch by 10 inch foam core is sufficient. Even a blank piece of cardboard will work, but would have a shorter useful life than the foam core.)
- Post-it notes: Small “flags” size post it notes work best. Color coding for these is not necessary, however students may find colors useful for categorizing labeling nodes.
- Colored push pins: Push pins that will be raised from the peg board should be obtained rather than push pins that are flush against the peg board. The raised pins will allow students to then wrap the rubber bands around the pin. Varied color variety packs of these pins work best.
- Colored rubber bands: ”Skinny” rubber bands work best as they will not “pull” on the pegs as hard as thicker bands. Varied color variety packs of these rubber bands work best.
Tips for Each of the Four Simulations

SCENARIO 1: FOUNDERING THE RECYCLING COALITION
This simulation is a good fit when studying: (1) collaborative governance; (2) public-private partnerships; or (3) intergovernmental cooperation. The management dilemma at the end deletes one of the six players. It is important to stress there is no one “right answer” for a network map at the end of this exercise. To the right is an example of a final map for Scenario 1.

SCENARIO 2: EMERSON COUNTY ADOPTS AN ILLEGAL OPEN BURNING ORDINANCE
This simulation is a good fit when studying collaborative governance in a situation where there is conflict and disagreement among the different actors. The management dilemma at the end adds an additional player bringing the number to seven. It is important to stress there is no one “right answer” for a network map at the end of this exercise. To the right is an example of a final map for Scenario 2.

SCENARIO 3: RED CLOUD AIRPORT WANTS A NEW RUNWAY
This simulation is a good fit when studying negotiated settlements, mediation, and situations where there is conflict and disagreement among the different actors. The management dilemma at the end deletes one player, bringing the number to five. It is important to stress there is no one “right answer” for a network map at the end of this exercise. Below is an example of a final map for Scenario 3.
SCENARIO 4: RED CLOUD TACKLES HOMELESSNESS
This simulation is a good fit when studying: (1) collaborative governance; (2) public-private partnerships; (3) intergovernmental cooperation; (4) “wicked problems”; and (5) situations with mild conflict and disagreement among the different actors. The management dilemma at the end adds and additional player bringing the number to seven. It is important to stress there is no one “right answer” for a network map at the end of this exercise. To the right is an example of a final map for Scenario 4.
### Suggested Readings / Accompanying Additional Discussion Questions:

<table>
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<tr>
<th>Course Reading</th>
<th>Related Questions And Scenario Pairing</th>
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(2) Are hierarchy and collaboration always in conflict with one another or can be nested within one another?  
*Pairs well with all four scenarios.* |
| Bryon, J. M., B. C. Crosby, & M. M. Stone (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review* Special Issue 44-55. | How does collaborative governance impact different sectors, such as government, business, not-for-profits, and the media?  
*Pairs particularly well with scenario 4.* |
What is the structural advantage for the different players (think about the particular interests, assets, and motivations)?  
*Pairs particularly well with scenario 1.* |
*Pairs well with scenario 3.* |
| Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology* 78(6): 1360-1380. | Based on Granovetter’s definitions and the information provided to you, which ties in this scenario would you define as “weak” and which would you define as “strong”?  
Are there advantages to either type of tie for the network actors?  
*Pairs well with all four scenarios.* |
*Pairs well with all four scenarios.* |
*Pairs particularly well with scenarios 1 and 4.* |
(2) How does “trust” as defined by Provan and Kenis come into play in the context of the collaboration in your scenario?  
*Pairs particularly well with scenarios 1, 2, and 4.* |
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<td>evaluating public-sector organizational networks. <em>Public Administration Review</em>,</td>
<td>of the networks in your scenario. <strong>Pairs well with all four scenarios.</strong></td>
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<tr>
<td>Powell, W. W. (1990). Neither market nor hierarchy. Research in Organizational</td>
<td>Explain how your scenario is an explanation of networks and collaboration instead of an example of</td>
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<td>Behavior 12: 295-336.</td>
<td>markets or hierarchy. <strong>Pairs particularly well with scenarios 1 and 4.</strong></td>
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<td>Powell, W. W. &amp; S. Grodal (2006). Networks of Innovation (pp56-85) From Ed. J.</td>
<td>Now that you have mapped the network using your own coding scheme, remap the network using Powell and</td>
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<td>Fagerberg, D.C. Mowery, &amp; R.R. Nelson</td>
<td>Grodals scheme based on strong ties versus weak ties; formal ties versus informal ties; and structural</td>
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<td><em>The Oxford Handbook of Innovation</em>. Oxford University Press.</td>
<td>holes. <strong>Pairs well with all four scenarios.</strong></td>
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