How do I create a System Map?

Our simple system map is built in three major steps we call Adaptive Action: What? So what? Now what?

What?

1. Name the question you want to explore. Nothing technical required here. Just call it what it is. Examples might include:

    - How does traffic flow around our school?
    - How will we plan our family vacation?
    - Why are there hungry children in our community?
    - What conditions prevent youth gang involvement in our city?

2. Identify the things that influence your question TODAY. Things might be objects, people, institutions, events, or anything else. Usually they will be nouns—names of persons, places, or things—but that isn't always true. Examples might include:

    - How does traffic flow around our school?
        - Buses
        - Roads
        - Stop signs
        - And so on . . .
    - How will we plan our family vacation?
        - Maps
        - Budgets
        - Calendars
        - And so on . . .
    - Why are there hungry children in our community?
        - Grocery stores
        - Vegetables
        - Candy
        - And so on . . .
    - What conditions prevent youth gang involvement in our city?
        - Schools
        - Current gangs
        - Boys and girls
        - And so on . . .

3. Write each thing on a separate sticky note and stick them all on a big piece of paper. You might use size and/or color to distinguish kinds of parts. For example:

    - Small blue ones for individual people
    - Mid-sized yellow ones for institutions
    - Big green ones for buildings or objects
    - And so on . . .

4. Move the stickies around to show how they relate to each other. For example:

    - Put similar ones together and different ones apart.
    - Put important ones in relation to each other—what's first or second? What is closer or nearer?
    - Put ones that are too big or complicated to think about on the edge of the page and come back to them later.
    - If one sticky includes too much stuff, create a cluster of other stickies that show what is inside.
    - Step back sometimes and look at the whole cluster of stickies.
    - Step in sometimes and focus on one set of related stickies.
    - Move them around into different kinds of groups.

5. Look for a "systems skeleton." The skeleton is a simple, underlying structure that could hold many different stickies. It takes clusters of the stickies and shows how the clusters are related. For example:

    - How does traffic flow around our school?
        - Morning
        - Afternoon
        - Noon-time
        - And so on . . .
    - How will we plan our family vacation?
        - Dad's vision of the perfect vacation
        - Mom's vision
        - Kids' visions
        - And so on . . .
    - Why are there hungry children in our community?
        - Children in the middle
        - Sources of caregiving that surround the child
        - Sources of food in the community—available and not
        - And so on . . .

- What conditions prevent youth gang involvement in our city?
  - Parts of the city
  - Ages of kids
  - In school/out of school activities
  - And so on . . .

6. Select one system skeleton and rearrange the stickies to match it. Add or remove other stickies as needed. If one skeleton doesn't work, just try another until you find one that seems to fit.

7. Use colored pens to draw lines and arrows between the stickies to show relationships. How do information, money, interest, contact, or other things flow? What influences or is influenced by something else? Which things appear to be causes and which results?

   - One-way arrow means one-way relationship from one thing to another.
   - Two-way arrow is a balanced relationship.
   - Solid arrow is average power of connection; heavy line is strong; dotted line is weak.
   - Colors can denote the kinds of relationship—money, information, power, etc.

8. Continue to move things around and draw connections until everyone agrees that there is a picture of the real (though not complete) system. This may take some time because each person needs time to think about and share what they know about how the system works today. Take your time and listen to all voices. If there is a difference you cannot resolve, include both options, but put them in different colors, so you'll remember to go back if you need to resolve the question later.

So What?

9. Step back from the map and consider the whole thing. Together, consider the following questions:

   - In general, what do you notice about the map?
   - What is missing? What is not fitting in?
   - What is connected that shouldn't be? What's not connected that should be?
   - What surprises you?
   - And . . .

10. Use the map to think about how the system works in the real world.

    - What is working, and how does it show up on the map?
    - What isn't working, and how does it show up?
    - Where are things stuck?
    - What gets lost? What gets in?
    - And . . .

11. Put a + next to the parts of the map that are working well, and put – next to the things that are not working well.

Now What?

12. What objects can you add or remove from the map to increase the +s or decrease the –s?

13. What connections can you make or break that will improve the flow and multiply the +s or decrease the –s?

14. What is one thing you (and the group) can do to change things on the ground based on what you've learned from the map?

15. Make a plan for taking action and coming together again in a short time (one week?) to report on the action (what?), review and revise the map (so what?), and plan for the next Adaptive Action (now what?).

We hope this Guide will help you map your challenges, so you can see them more clearly, understand them in more useful ways, and take action to shift the patterns that have you stuck. We welcome your feedback and would love to see the maps you create using this guide. Please take a photo and post it as a comment on this blog post. Questions and comments can come there, too. Best of luck with your most sticky issues.

I would like thank the Dynamical Systems Theory Innovation Lab for sparking this approach to mapping and to Łukasz Jochemczyk for moving the inspiration to action.

ADAPTIVE ACTION
Leveraging Uncertainty in your Organization

System Mapping for You A quick reference for systemic Adaptive Action.

Complex systems can be confusing and overwhelming. This simple process helps you and your partners see patterns, understand them in useful ways, and influence the current situation to create the future you desire.

What?

1 Name the question you want to explore.
2 Identify the things that influence your question TODAY.
3 Write each thing on a separate sticky note and stick them all on a big piece of paper.
4 Move the stickies around to show how they relate to each other.
5 Look for a "systems skeleton."
6 Select one system skeleton and rearrange the stickies to match it.
7 Use colored pens to draw lines and arrows between the stickies to show how information, money, interest, contact, or other things flow.
8 Continue to move things around and draw connections until everyone agrees that there is a picture of the real (though not complete) system on the paper.

Systemic Adaptive Action is most powerful when you focus on . . .

Agreement and usefulness, not right or wrong.

This time, place and people, not others.

Map of problem, not of the world.

Ways to move forward, not stuck in perfection.

Look for influence, not total understanding.

Shared meaning and action, not influence from outside.

Current situation, not desired future.

Personal passion and responsibility, not advice for others.

Present forward, not blaming the past.

Move past boundaries, not staying stuck.

So What?

9 Step back from the map and consider the whole thing.
10 Use the map to think about how the system works in the real world.
11 Put a + next to the parts of the map that are working well, and put – next to the things that are not working well.

Now What?

12 What objects can you add or remove from the map to increase the +s or decrease the –s?
13 What connections can you make or break that will improve the flow and multiply the +s or decrease the –s?
14 What is one thing you (and the group) can do to change things on the ground based on what you've learned from the map?
15 Make a plan for taking action and coming together again to report, review and revise the map, and plan for the next Adaptive Action.