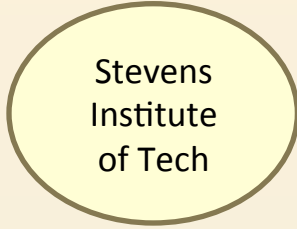




# Challenges and Successes Associated with Introducing Systems Concepts to an Existing Evaluation

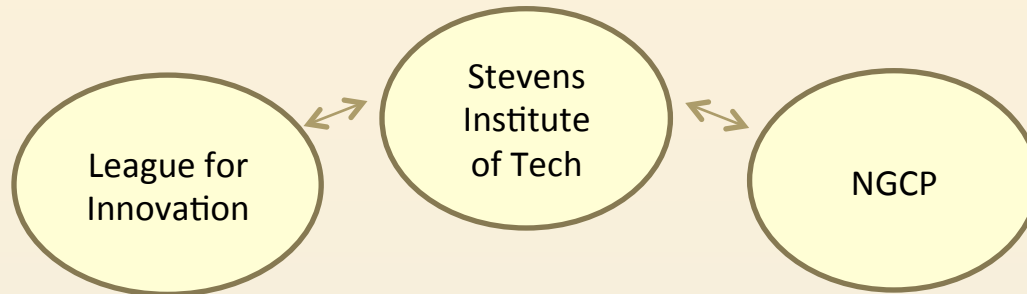
Ginger Fitzhugh  
American Evaluation Association  
October 26, 2012

# *WaterBotics* scale-up evaluation

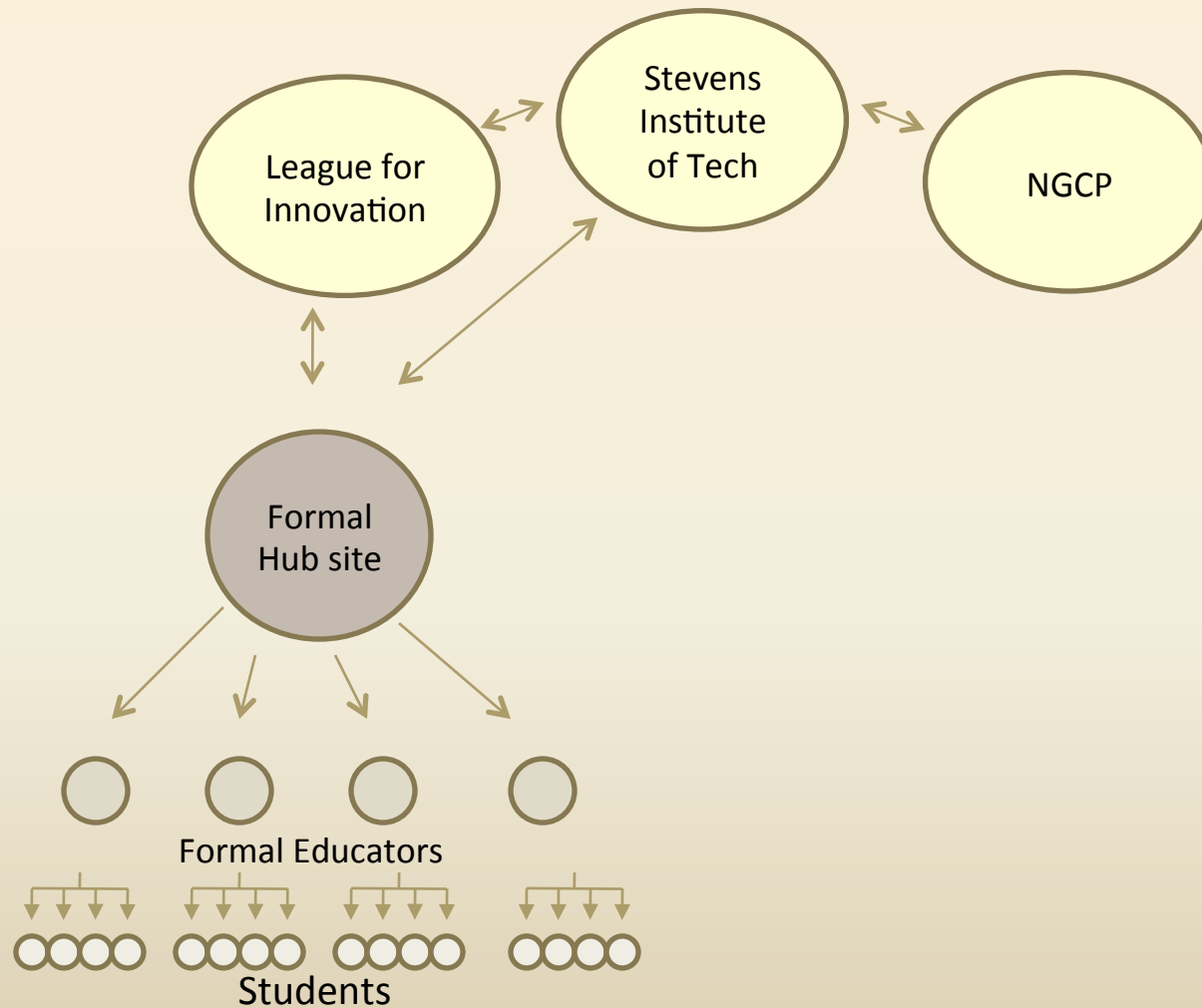
A yellow oval with a thin brown border containing the text "Stevens Institute of Tech".

Stevens  
Institute  
of Tech

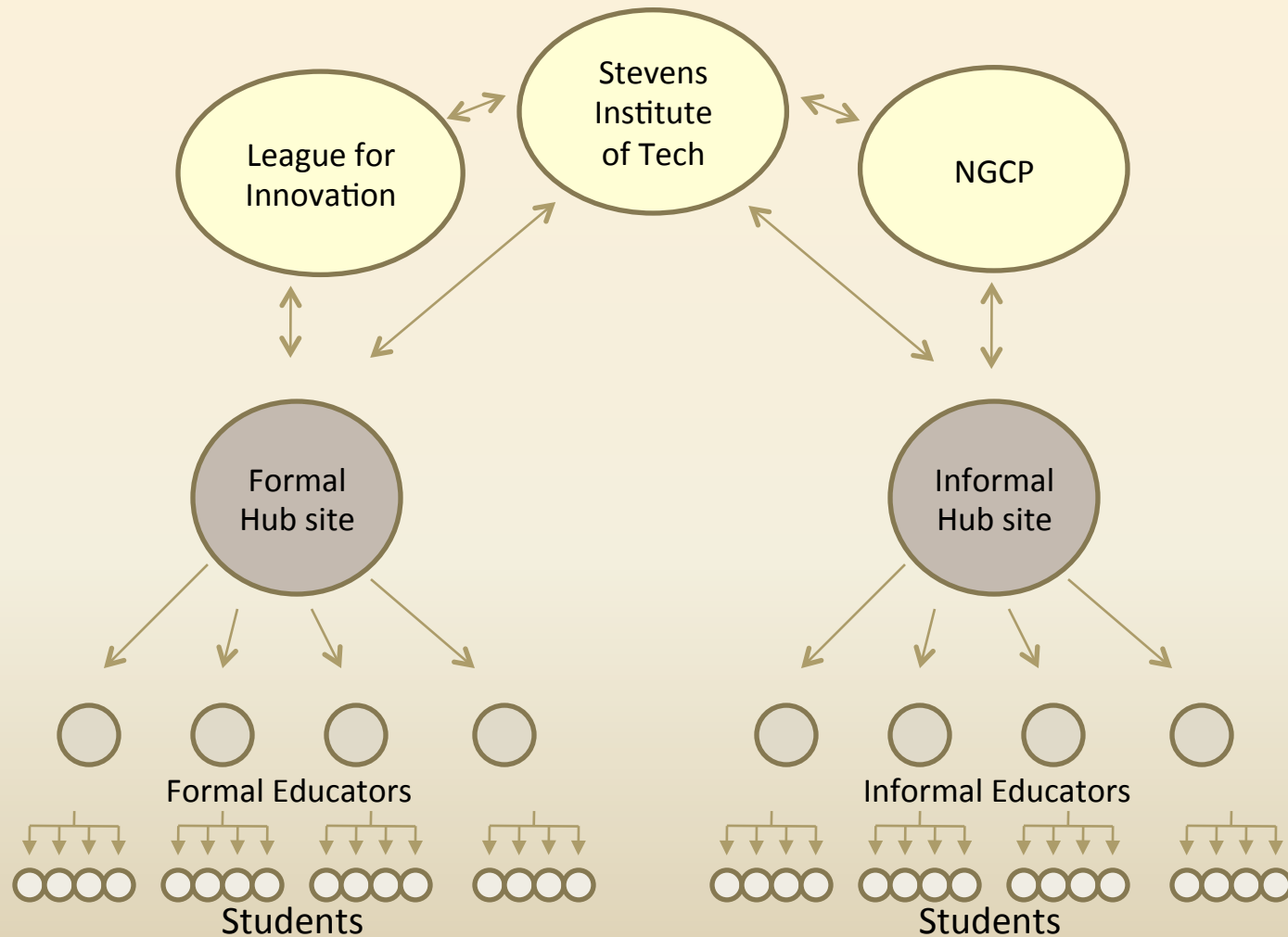
# *WaterBotics* scale-up evaluation



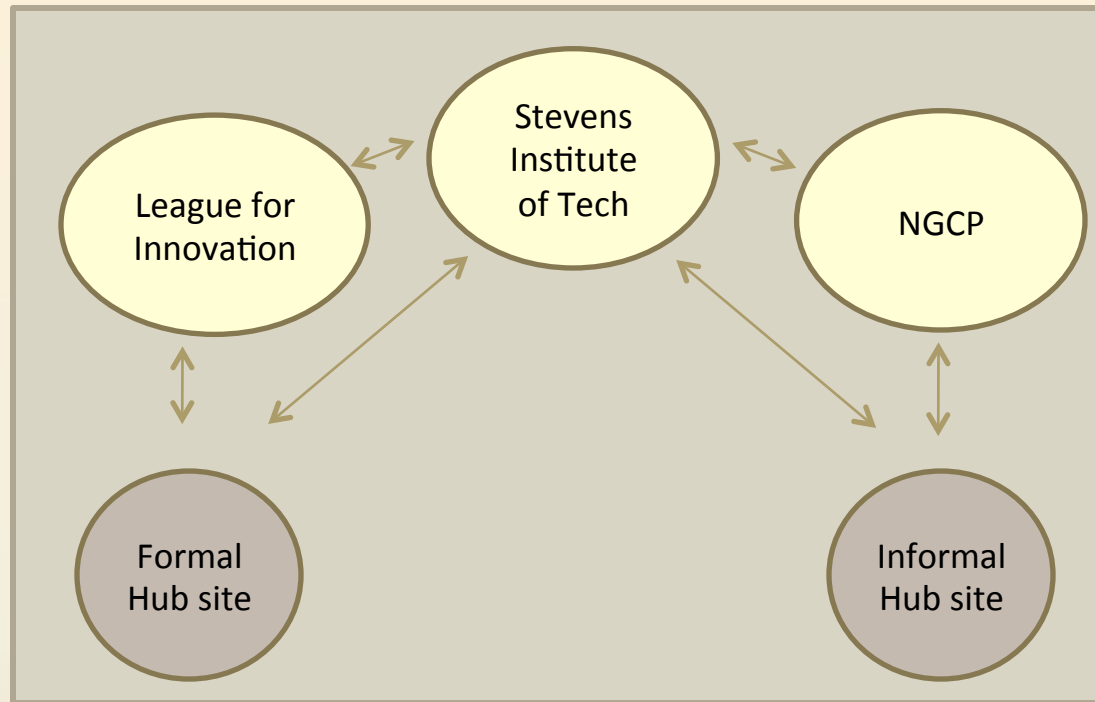
# WaterBotics scale-up evaluation

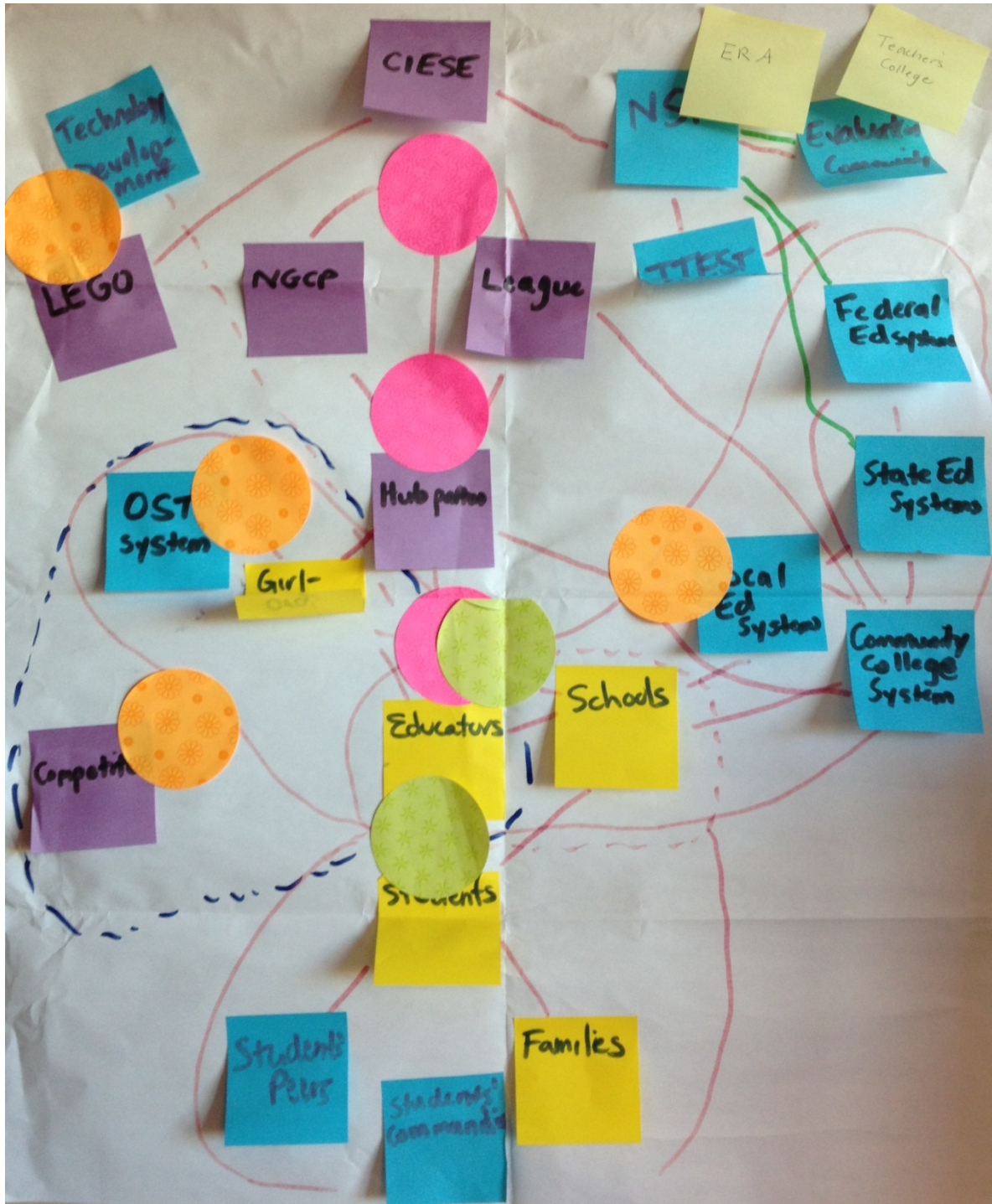


# WaterBotics scale-up evaluation



# *WaterBotics* scale-up evaluation





A system is an interconnected set of elements that is coherently organized in a way that achieves something.

From D. Meadows (2008). *Thinking in Systems*. White River Junction, VT: Chelsea Gun Publishing.

# Q: How can I add systems?



Limited Time



Limited Scope



Limited Budget

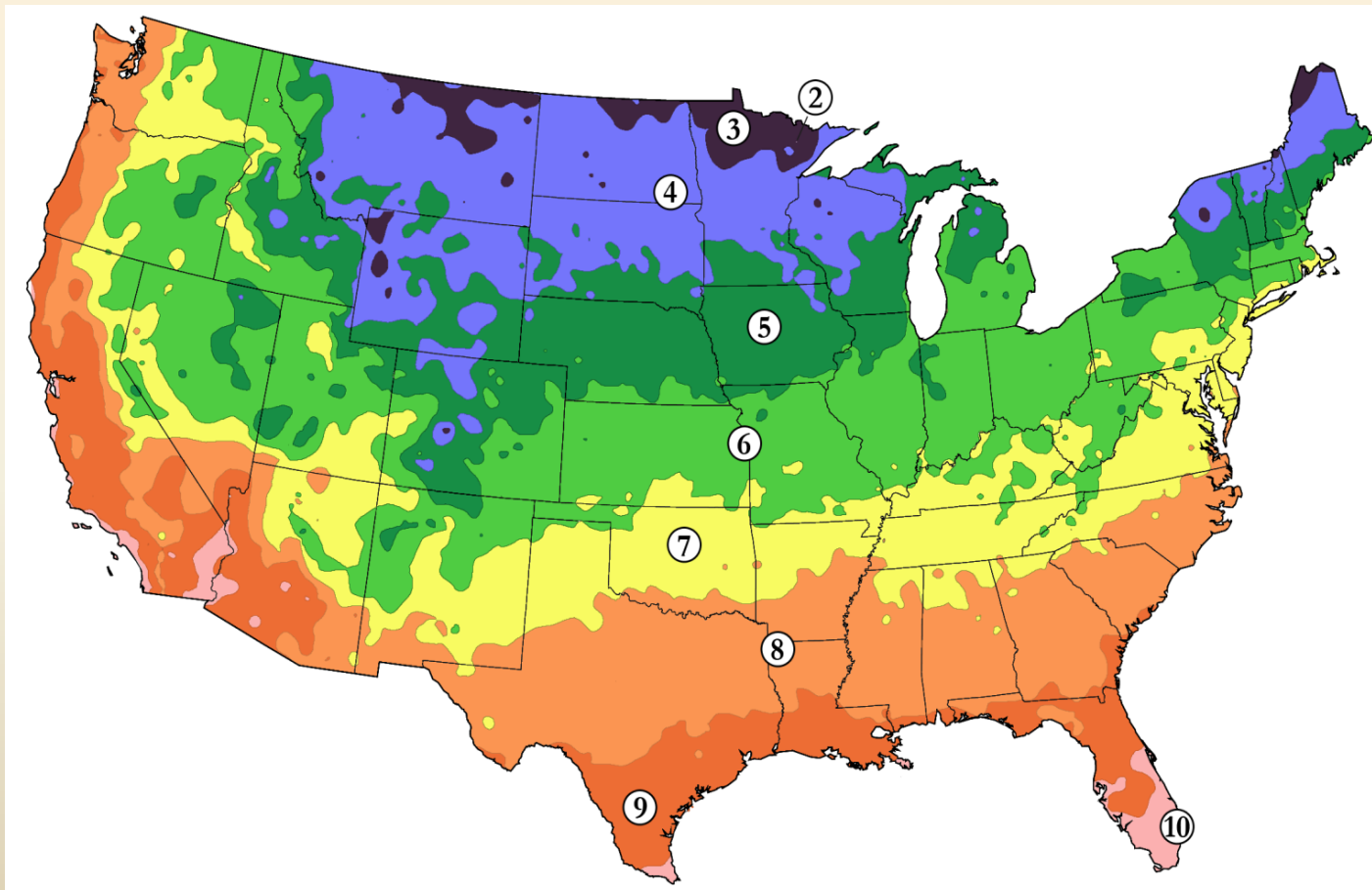


# A: Focus on three concepts

1. Boundaries
2. Relationships
3. Perspectives

# Concept 1: Boundaries

Demarcations that create a region or entity<sup>1</sup>



<sup>1</sup>Courtesy of Beverly Parsons, InSites

# Concept 2: Relationships

Connections/exchanges among bounded system parts<sup>1</sup>



<sup>1</sup>Courtesy of Beverly Parsons, InSites



# Concept 3: Perspectives

Mental models,  
world views,  
purposes<sup>1</sup>

<sup>1</sup>Courtesy of Beverly Parsons,  
InSites

# Questions That Matter



## Questions that Matter: A Tool for Working In Complex Situations

The following questions are designed to help evaluators, planners, and implementers of change initiatives as they work with complex situations and systems. The questions draw attention to multiple dynamics, perspectives, and paradigms within complex systems/situations.

Conditions for Adaptive Systems	Example Questions to Ask
<b>Boundaries:</b> Boundaries are demarcations that create a region or entity. Boundaries can refer to physical entities, organizational identity, social systems, rules of conduct, and other demarcations. Boundaries are often permeable to allow exchange with the environment and also impermeable in that they distinguish the system or other entity from its environment.	<p>What boundaries are changing or need to change between the work/project and its context?</p> <p>How are the boundaries changing among the organized, self-organizing, and unorganized dynamics of the work?</p> <p>What changes in boundaries would bring new creative energy or stabilizing energy into the work?</p>
<b>Relationships (interconnections):</b> Relationships refers to the connections and exchanges that exist among bounded parts of a system. Interconnections/relationships tend to be key aspects of forming patterns. The connections may be as, or more, important than the entities making up a system. Some relationships form systems such as hierarchical systems, networks, families, communities, and social groups. Cause and effect relationships are another type of relationship.	<p>What relationships appear to be contributing to meaningful results or conditions?</p> <p>What are the relationships/connections among the stakeholders?</p> <p>How might changes in relationships affect the short and long term outcomes or general direction of the work?</p> <p>What feedback loops are built into the project/initiative and the larger system?</p>
<b>Differences/diversity/energy:</b> Differences create energy. It may be negative or positive from various perspectives but the energy gives the potential for movement. Diversity tends to create energy. When looking for differences that matter, look for the nature of the energy within a bounded region.	<p>Is there sufficient diversity in the self-organizing units to stimulate creative ways of addressing challenging issues?</p> <p>What are the important power dynamics in the work or between the work and the context?</p> <p>Where is energy being created? Where is it stagnating?</p> <p>Where could scattered energy be consolidated and directed to the desired end?</p>
<b>Perspectives:</b> Perspectives refers to world views and purposes. Different stakeholders may have different perspectives on a given situation although all those within a given stakeholder group do not necessarily have the same perspective.	<p>What variation in perspectives (worldviews and purposes) are present within the work and what are the patterns of where they exist?</p> <p>What variations exist in whose expertise is valued?</p> <p>What shifts are occurring in the acceptance and spread of new</p>

Parsons, B. and Jessup, P. (2009). *“Questions that Matter: A Tool for Working in Complex Situations”*. Ft. Collins, CO: InSites. Available at insites.org.

# Boundary Questions

General Systems Questions	Specific Interview Questions
How stable/permeable are the boundaries?	How do you see informal settings being similar to or different than formal settings?
What shifts are needed in resources to reach the desired goal?	What skills and abilities have the hub sites lacked or struggled with in implementing <i>WaterBotics</i> ? How has the leadership team addressed these issues?
How are the boundaries changing between the intervention and its context?	What external factors have significantly affected the project this past year? How did they affect the project?

# Relationship Questions

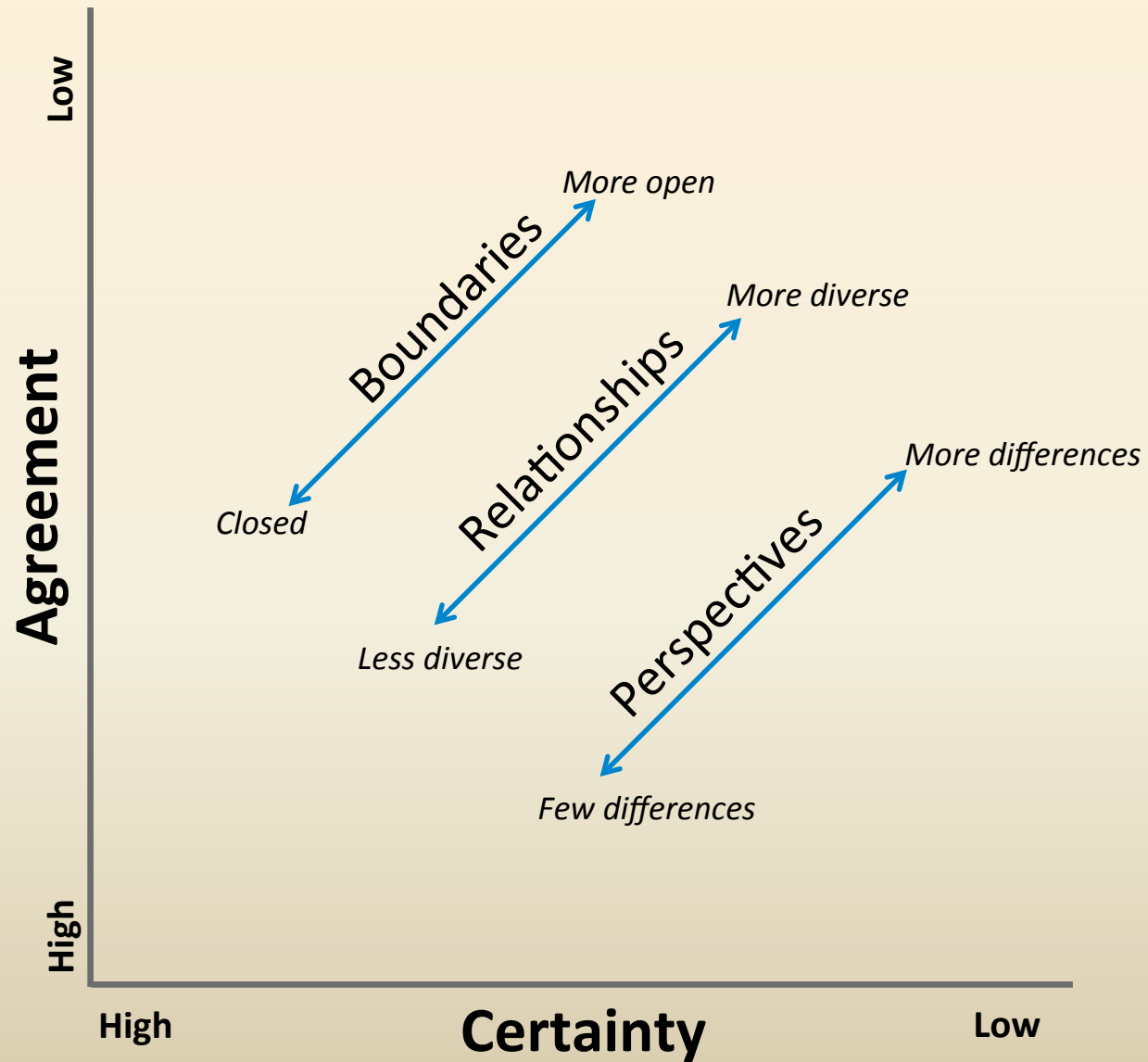
General Systems Questions	Specific Interview Questions
What are the relationships/connections among the stakeholders?	In what ways have you involved the hub sites and partners in planning the work as the project was implemented?
What feedback loops are built into the project?	How often did you communicate with hub sites leaders during this past year? Who initiated the communication? What kinds of things did you discuss?
How might changes in relationships affect the short- and long-term outcomes or general direction of the work?	What new relationships/connections are needed to make this project even more successful in meeting its goals?

# Perspective Questions

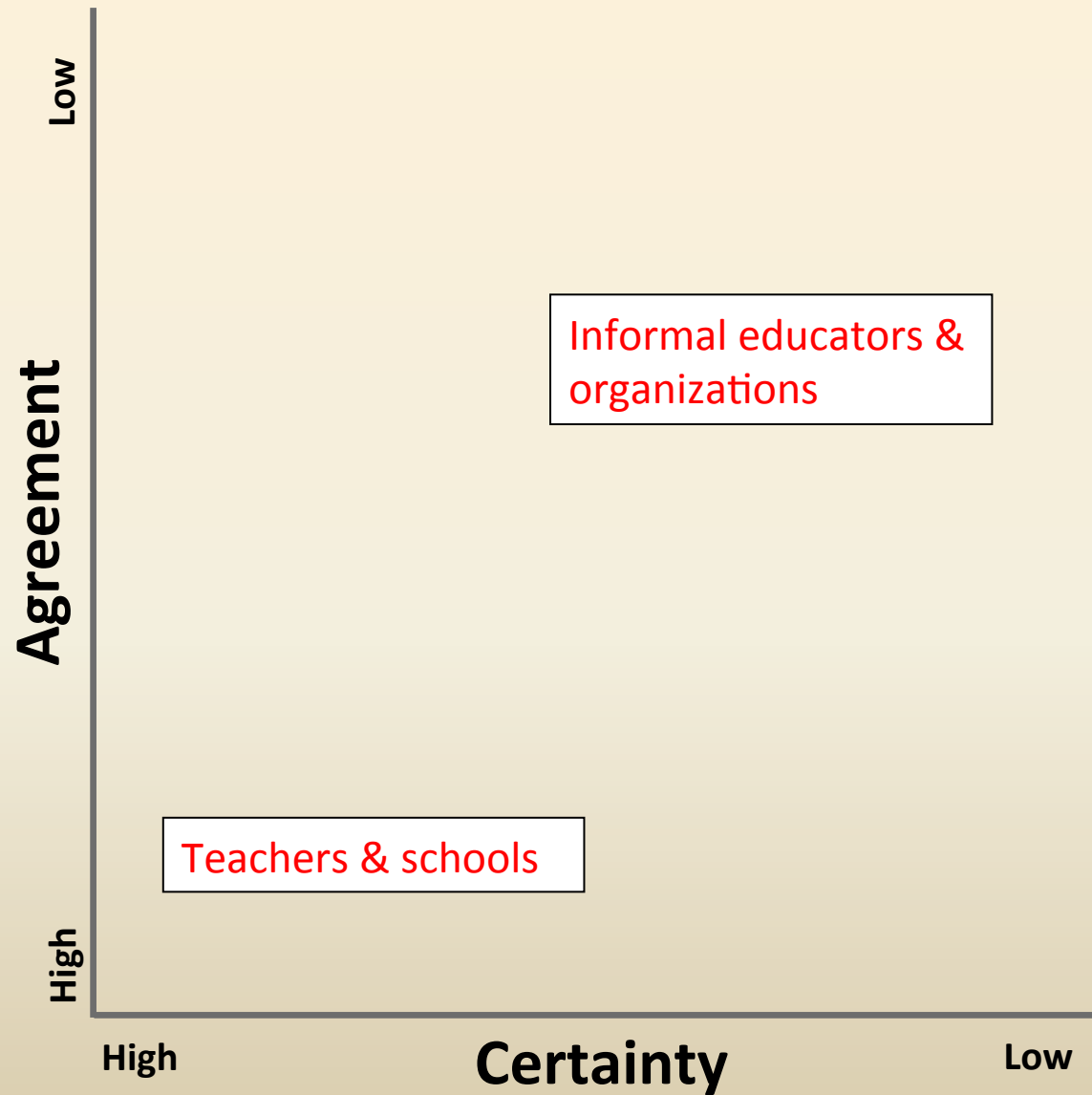
General Systems Questions	Specific Interview Questions
What are stakeholders' perspectives re: project goals? How are they similar or different?	We're interested in what your vision of the <i>WaterBotics</i> project is now that you have begun implementation. Imagine that it is four years from now and <i>WaterBotics</i> has been very successful. Could you describe what that looks like?
Are stakeholders missing or avoiding an important perspective?	Do you seek input from hub site leaders and/or educators? If so, how do you do that?
Where is energy being created? Where is it stagnating?	What has been most exciting about the work thus far? At this point in the project, what has been most frustrating or challenging?



# System Dynamics



# Mapping Project Subsystems





# Learning Lessons

Set up doable  
*boundaries* around  
evaluation

Develop *relationships*  
with clients around  
systems thinking

Look at existing  
evaluation with fresh  
*perspective*

Visit [www.inSites.org](http://www.inSites.org) to learn more about ECLIPS

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