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NPS-AM-07-015



EXCERPT FROM THE PROCEEDINGS

OF THE FOURTH ANNUAL ACQUISITION RESEARCH SYMPOSIUM WEDNESDAY SESSIONS

Developing Collaborative Capacity: A Diagnostic Model

Published: 30 April 2007

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**4th Annual Acquisition Research Symposium
of the Naval Postgraduate School:**

**Acquisition Research:
Creating Synergy for Informed Change**

May 16-17, 2007

Approved for public release, distribution unlimited.

Prepared for: Naval Postgraduate School, Monterey, California 93943



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Developing Collaborative Capacity: A Diagnostic Model

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Abstract

Federal Acquisition Reform acknowledges the importance of effective collaboration among participating organizations. However, both research and practical experience have shown that inter-organizational collaboration can be difficult to achieve. This research builds



on a model developed by the authors with homeland security organizations that identified enablers and barriers to collaborative capacity. The focus of our current research is to develop a diagnostic mechanism that can be used to improve that capability. The initial conceptual model and research from homeland security has been elaborated into an item bank of diagnostic interview and survey questions. A diagnostic process based on the established practices of organizational development is offered to guide the design and application of tailored assessments. Recommendations are given for the use of the diagnostic process to generate organization- or network-specific data that can guide action planning to improve collaborative capacity.

Introduction

The research presented at this symposium represents the completion of our FY06 activities as well as the plans and progress on the FY07 efforts in the development of a diagnostic method to assess the capacity of organizations to work collaboratively with other organizations. The first phase of the research developed a conceptual model of inter-organizational collaboration, identified factors that enable or inhibit collaboration and established a comprehensive item bank of survey and interview questions that could be used to diagnose the collaborative capacity of an organization or system of organizations. It also outlined a process, based on principles of organizational development, by which the diagnostic results can be used to design interventions to improve collaborative capacity. The second phase, which is in progress, is field testing the items as well as the diagnostic process on interagency partnerships in both the homeland security and acquisition context. The product of Phase Two will be a revised and validated diagnostic instrument and field-validated model for collaborative capacity.

Background

Federal Acquisition Reform has consistently called for more and better collaboration among participating acquisition agencies as well as between the DoD and defense contractors. Specifically, the *DOD Directive 5000.1 (The Defense Acquisition System, paragraph E1.2, Collaboration, 2003)* specifically states that teaming among warfighters, users, developers, acquirers, technologists, testers, budgeters, and sustainers shall begin during the capability-needs-definition phase of the acquisition lifecycle. Furthermore, the recent *Defense Acquisition Performance Assessment (DAPA)* report recommends improved collaboration among acquisition organizations as well as between the DoD and industry. The use of Integrated Product Teams (IPTs), Partnering relationships, and Alpha Contracting processes are a few examples of innovative arrangements being used in some commands. As *DAPA* recommendations are implemented, additional collaboration requirements and opportunities will emerge.

Collaboration across organizations in government and industry has been found to reduce litigation, decrease costs, and increase innovation (Mankin, Cohen & Fitzgerald, 2004). However, experience shows that organizations commonly fail when they attempt to build collaborative relationships. Among the reasons for ineffective collaboration are: diverse missions, goals and incentives that conflict with one another; histories of distrust that are hard to alter; leaders who do not actively support collaborative efforts; and the lack of supportive coordination systems and structures (US Government Accountability Office, 2002, December). However, experience shows that inter-organizational collaboration can be difficult at best. Our research focuses on identifying and assessing those factors that facilitate or inhibit successful collaboration, with the ultimate aim of guiding actions to



enhance the *capacity* of organizations to collaborate with each other when appropriate. We define collaborative capacity as the *ability of organizations to enter into, develop, and sustain inter-organizational systems in pursuit of collective outcomes*.

Development of the Diagnostic Model and Assessment Tool

In a series of studies, beginning with research on homeland security organizations and then reformulated to also address the acquisition context, we have developed a general framework for addressing the problem of how interagency collaborative capacity is developed and maintained (Hocevar, Jansen & Thomas, 2004; Hocevar, Thomas, & Jansen, 2006). The model developed in Phase One of our research program identifies imperatives of successful collaboration and aims to assist organizations in diagnosing their collaborative capacity. The focus of Phase Two was the development of a database of interview and survey questions that can be used to tailor collaborative capacity assessments to specific collaborative contexts. The goal of the diagnostic is to allow organizations to assess their capacity to engage in collaborative efforts and then use the assessment results to identify specific activities to improve their collaborative capacity. The survey and interview questions were developed in conjunction with the five dimensions in our model of interagency collaboration capacity. The dimensions are presented in more detail in Figure 1.

Figure 1. Factors Related to the Development of Collaborative Capacity

Organization dimensions	“Success” factors that contribute to collaborative capacity	“Barriers” that inhibit collaborative capacity
Purpose & strategy	<ul style="list-style-type: none"> - “Felt need” to collaborate - Common goal or recognized interdependence - Adaptable to interests of other organizations 	<ul style="list-style-type: none"> - Divergent goals - Focus on local organization over cross-agency (e.g., regional) concerns - Lack of goal clarity - Not adaptable to interests of other organizations
Structure	<ul style="list-style-type: none"> - Formalized coordination committee or liaison roles - Sufficient authority of participants 	<ul style="list-style-type: none"> - Impeding rules or policies - Inadequate authority of participants - Inadequate resources - Lack of accountability - Lack of formal roles or procedures for managing collaboration
Lateral mechanisms	<ul style="list-style-type: none"> - Social capital (i.e., interpersonal networks) - Effective communication and information exchange - Technical interoperability 	<ul style="list-style-type: none"> - Lack of familiarity with other organizations - Inadequate communication and information sharing (distrust)



Incentives	- Collaboration as a prerequisite for funding or resources	- Competition for resources
	- Leadership support and commitment	- Territoriality
	- Absence of competitive rivalries	- Organization-level distrust
	- Acknowledged benefits of collaboration (e.g., shared resources)	- Lack of mutual respect
People		- Apathy
	- Appreciation of others' perspectives	- Lack of competency
	- Competencies for collaboration	- Arrogance, hostility, animosity
	- Trust	
	- Commitment and motivation	

Specific survey and interview questions have been generated for each of the five dimensions of collaborative capacity presented in the figure above. Illustrative questions for each of the dimensions are presented below:

Purpose and Strategy questions address organizational purpose, goals, and values; the degree of perceived “felt need” to collaborate; and strategic planning processes.

- *Interagency collaboration is a high priority for this organization.*
- *We have clearly established goals for interagency collaboration.*
- *We consistently use an interagency approach to planning.*

Collaborative Structure includes policies, roles and responsibilities that facilitate or serve as barriers to collaboration; formal control mechanisms including authority and standard operating procedures; and coordinating structures.

- Our organization is flexible in adapting our procedures to better fit with those of partner organizations.
- My organization has mechanisms in place to monitor and evaluate collaborative efforts.
- Conflicting organizational policies make collaboration very difficult.

Social Capital through Lateral Mechanisms addresses both formal and informal factors, including network ties, information sharing, combined training, and familiarity with other organizations. These factors, working together, can become internalized into a culture of collaboration:



- *Our organization has strong norms that encourage sharing information with other agencies.*
- *Our organization commits adequate human and financial resources to training with other agencies.*
- *Our organization invests time and resources to become familiar with the capabilities and requirements of our partner organizations.*

Incentives address both the factors that encourage and discourage organizational- and individual-level engagement in collaboration. The structure of incentives can shape whether organizations frame their interactions as collaborative or competitive.

- A history of competition and conflict affects our interagency capability.
- Our organization rewards members for their interagency collaborative activities.
- The senior leaders of our organization often discuss the importance of interagency collaboration with others in the organization.

People are the foundation for macro-level collaboration, which ultimately depends on their perceptions, motives, attitudes, and skills.

- *Members of our organization respect the expertise of those in other organizations with whom we have to work.*
- *We have training in place to develop collaborative skills (e.g., conflict management, team-process skills).*
- *People in our organization tend to be suspicious and distrustful of our partners in other organizations.*

We expect that the ability to systematically assess collaborative capacity can contribute to something akin to a common doctrine and common operational picture that will assist leaders in developing action plans for developing this important capability. The diagnostic process encourages a common language and understanding around collaboration and assists leaders in determining capabilities that the organization must develop to be successful. The next section shows how our diagnostic tool can leverage learning for an organization.

Process for Diagnosing Collaborative Capacity

We have shaped the process for using the collaborative capacity diagnostic around the well-established principles of organization development (Beckhard, 1969). The focus in this presentation is how to use the Collaborative Capacity survey instrument to inform leaders and change agents of the strengths and weaknesses of their organization's collaborative systems. From these data, specific interventions can be identified and implemented. The survey tool is, thus, designed to contribute to a learning process that improves interagency relationships.



This approach follows the process of a “gap” analysis (e.g., Harrison, 1994). In consultation with the client organization(s), the diagnostic process identifies the desired future state—why collaboration is needed and ways in which improvements in this capability can be accomplished. Through the dialogue that occurs in the design, conduct, and analysis of survey results, organizational members become sensitized to the importance of the issues being assessed (Downs & Adrian, 2004). The data from the diagnostic survey also provide a mechanism to challenge existing mental models or assumptions of organizational members about inter-organizational collaboration. They provide a common basis for understanding the “current state” and can, thus, motivate desired improvements.

The key question being addressed in interpretation is, “What do the assessment results mean?” In action planning, the question is “What do we do about it?” The organizational members engaged in action planning may be different (or in addition to) those who were involved in the interpretation. It is important to involve members in deciding what action to take if their commitment or capabilities are necessary to the implementation of the action plan. Feedback about the diagnostic process should include not only the results and interpretation of the assessments, but also the interventions identified as part of action planning. Ongoing communication through the implementation of action planning is also important if the diagnostic process is to contribute broadly to organizational learning (Downs & Adrian, 2004; Senge, 1992).

The initial assessment establishes a baseline that can be used to evaluate progress toward the desired goals after the implementation of interventions. The assessment also allows the opportunity for comparisons across organizational levels and units. For example, it may be worthwhile to investigate the extent to which top-level managers’ assessment of collaborative capacity is similar to those of front-line workers. Also of interest could be a comparison of those whose work involves them with counterparts in other organizations/agencies with those who have less frequent contact.

Next steps—Validating the Assessment Tool with Field Testing and Subject-matter Experts (SMEs)

There is a growing body of literature on the concept of a capacity for collaboration, and our results to date coincide with others who are working in this area (e.g., Foster-Fishman, Berkowitz, Lounsbury, Jacobson, & Allen, 2001; Hansen & Nohria, 2004; Huxham, 1996; Mankin, Cohen, & Fitzgerald, 2004). What we add to those pursuing these ideas (e.g., Bardach, 1998) is a way to measure the overarching concept of collaborative capacity and the contributing variables. Generating valid and reliable interview questions and survey items require a painstaking process of refinement, testing and retesting. All questions are to be subjected to critical review by subject-matter experts from the acquisition community as well as from homeland security organizations currently implementing or initiating inter-organizational collaboration. The interagency level of analysis is complex and requires analysis from a variety of possible contexts, forms, structures and processes. Our goal is to develop an audit that is sufficiently generalizable to be conducted in a wide variety of contexts, but it must be specific enough to provide actionable insights to organizational leaders.

In this stage of our research, we are identifying potential partners who are interested in assessing collaborative capacity. These partners will allow us to field test the instrument with organizations that are in different developmental stages. In other words, some



organizations may have only recently initiated the process of collaborating; others may have been collaborating for some time, but face the problems of institutionalizing and formalizing the process; and some may have institutionalized their processes. Different lessons can be learned in each of these contexts.

We should also note that the process of validating items is also a process of validating and elaborating theoretical constructs. This means that the nuts-and-bolts process of revising and interpreting items through field testing itself generates more coherent and useful ways of thinking about the capabilities and capacities of interagency collaboration. For example, we anticipate developing some preliminary hypotheses about the developmental stages of collaborative capacity as we begin our field testing work with organizations that have different amounts of experience with interagency collaboration. We also expect that we will begin to identify somewhat of a hierarchy of predictors of collaborative capacity because it is unlikely that all factors included in our current model are of equal impact in influencing collaboration. As we proceed with our research, we will be developing a more refined diagnostic process, as well as a more refined understanding of how collaborative capacity develops and ways it can be fostered.

Bibliography

- Bardach, E. (1998). *Getting agencies to work together: The practice and theory of managerial craftsmanship*. Washington, DC: Brookings Institution Press.
- Beckhard, R. (1969). *Organization development: Strategies and models*. Reading, MA: Addison Wesley.
- Downs, C.W., & Adrian, A.D. (2004). *Assessing organizational communication: Strategic communication audits*. New York: The Guilford Press.
- Foster-Fishman, P.G., Berkowitz, S.L., Lounsbury, D.W. Jacobson, S. & Allen, N.A. (2001). Building collaborative capacity in community coalitions: A review and integrative framework. *American Journal of Community Psychology*, 29(2), 241-257.
- Hansen, M.T., & Nohria, N. (2004). How to build collaborative advantage. *MIT Sloan Management Review*, 46(1), 22-30.
- Hocevar, S., Thomas, G.F., & Jansen, E. (2006). Building collaborative capacity: An innovative strategy for homeland security preparedness. In M.M. Beyerlein, D.A. Johnson, & S.T. Beyerlein (Eds.), *Innovation through collaboration* (Vol. 12) (pp. 263-283). New York: Elsevier.
- Hocevar, S., Jansen, E., & Thomas, G.F. (2004). *Building collaborative capacity for homeland security*. Naval Postgraduate School (Technical Report NPS-GSBPP-04-008). Monterey, CA: Naval Postgraduate School.
- Huxham, C. (1996). Collaboration and collaborative advantage. In C. Huxham (Ed.), *Creating collaborative advantage* (pp. 1-18). London: Sage Publications.
- Mankin, D., Cohen, S., & Fitzgerald, S.P. (2004). Developing complex collaboration: Basic principles to guide, design, and implementation. In M.M. Beyerlein, D.A. Johnson, &



- S.T. Beyerlein (Eds.), *Complex collaborative: Building the capabilities for working across boundaries* (pp. 1-26). New York: Elsevier.
- Senge, P.M. (1992). Catalyzing systems thinking within organizations. In F. Massarik (Ed.) *Advances in organization development* (Vol. 1) (pp. 197-246). Norwood, NJ: Ablex Publishing.
- United States Government Accountability Office. (2002, December). *Homeland security: Management challenges facing federal leadership* (GAO-03-260). Washington, DC: author.



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