



Determining When and How to Conduct Capacity Building Using Grid Analysis and Decision Trees

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Abstract

Like other powerful intervention and support processes—such as coaching—capacity building cultivates the context and provides the tools needed to successfully implement complex change initiatives. The capacity-building process is customized according to specific individual and group needs and yields an array of highly effective behaviors that increase task performance. As a result, capacity building can become a preferred intervention over time, and it is often used to the exclusion of other support processes. Capacity building is an intensive, purposeful, and long-term process that focuses on targeted skill and capacity gaps, and it may not be needed for every identified issue.

When should capacity building be used? Once capacity building is indicated, which criteria can technical assistance providers use to determine how to conduct capacity building? This article presents a set of criteria that can be used to identify the circumstances when capacity building would be the most effective intervention and offers a second set of criteria to determine how the capacity-building process should be conducted.

Determining When Capacity Building Should Be Conducted

Change agents and technical assistance providers often have to decide whether capacity building is warranted. They also need a set of criteria that can be used to determine when capacity building is appropriate—and when it’s inappropriate—for guiding and supporting change. The criteria can be used to determine when to use capacity building and when to implement other technical assistance processes.

Determining when to conduct capacity building is a two-part decision made by analyzing (1) the change initiative status and (2) the needs of the staff members engaged in the work. At the initiative level, capacity building is most appropriate when the change initiative is complex; specific information and skill proficiencies are essential; extended time is needed for completion; the work is supported by decision makers; and the initiative has a clear target, impacts system priorities, and has sufficient resources to complete the designated task. At the staff level, capacity building is most appropriate when staff members participated in professional development training related to the initiative, have experience in associated work, and are interested in improved performance but are inconsistent in performing the work. In addition, capacity building is most appropriate at this level when staff need support in using structures and processes to complete the target task or do not know how to proceed, organize, or refine the task.

Circumstances that do not meet the capacity-building criteria are situations in which the presenting issue should be supported by other intervention processes. For example, if the individual has





previously completed the target task, but with errors or difficulty, the work becomes corrective technical assistance. If the individual has not completed similar tasks, or has completed only portions of the target task, the work is at a developmental level requiring training or professional development.

Criteria for determining when capacity building should be conducted are drawn from two areas: the literature on strategic organization change (Sirkin, Keenan, and Jackson, 2005; Light and Hubbard, 2002) and the literature on individual proficiency and competency (Kaplan, 1999; Ulrich and Smallwood, 2004; Brinkerhoff, 2006; Banerjee, 2006).

Criteria for Analyzing the Change Initiative

Capacity building is a complex change process best implemented when essential conditions for success are in place for the context of the initiative and the work to be completed (Harsh 2012). The criteria for a successful initiative include:

1. Commitment and champion
2. Resources
3. Task complexity
4. Duration
5. Impact

(Sirkin, Keenan, and Jackson, 2005; Light and Hubbard, 2002). The commitment and champion criteria denotes support for the work by decision makers and stakeholders and a broad range of support for the change. Staff and stakeholders demonstrate sustained effort and dedication to the initiative. One or more people have the initiative at the top of their agenda, plan the overall approach, drive the implementation, and promote the initiative; and the champion has the skills to make the initiative successful. Resources involve the allocation of sufficient human and financial means to complete the designated task. Task complexity indicates the initiative focuses on targeted skills and requires an array of capacities;

additionally, specific information and skill proficiencies are essential to complete the designated tasks and the changes involved in the initiative are complex. Duration refers to the fact that the initiative involves intensive, purposeful tasks and requires long-term or extended time to complete the work. Impact denotes that the initiative generates a wide range of effect and impacts system priorities.

Two additional criteria are desirable but not initially required for success: (1) embedded, which means the initiative is integrated into long-term work and the priorities of the organization, and (2) change strategy, which indicates the organization has a specific approach to implementing change and sustaining the work. For both embedded and change strategy criteria, capacity-building interventions can be designed to develop and cultivate the conditions that will help attain the desired change.

The five criteria for a successful initiative and the descriptor for each were used to create criteria for determining when a request or a piece of work is ready for capacity building. Technical assistance providers can use the criteria to identify and select initiatives that are supported by decision makers and that have a clear target and sufficient resources to complete the work.

Criteria for Analyzing Staff Needs

In addition, and perhaps more importantly, the decision regarding the use of capacity-building intervention includes a determination of whether the needs of the individuals involved will be responsive to capacity building. The determination centers around three areas:

1. Disposition and will
2. Training and professional development
3. Experience

(Kaplan, 1999; Ulrich and Smallwood, 2004; Brinkerhoff, 2006; Banerjee, 2006). Disposition and will refer to a condition in which staff members involved in the initiative or targeted work (a) recognize a gap in performance, (b) are



interested in improving, and (c) are willing to engage in capacity building. The training and professional development criteria note that staff members participated previously in professional development training related to the initiative or task. The experience criteria describes a condition in which individuals involved in the initiative (a) are experienced in similar work but inconsistent in performing the targeted work; (b) need support in using structures and processes to complete the target task; or (c) do not know how to proceed, organize, or refine the initiative tasks.

Determining How to Conduct Capacity Building

Once a decision is made to use capacity-building intervention, technical assistance providers must decide how to conduct support services that will address identified capacity needs. In designing capacity building, change agents and technical assistance staff develop a plan of action that focuses on the components of the task to be accomplished along with the support required to build the capacities necessary to do the targeted work. In order to prepare and deliver services relevant to the specific initiative, the plan is designed around the type, stage, level, and outcome of technical assistance needed to move the work forward.

Type of Capacity

Educational change involves four types of capacity that define and undergird the layers of specific capacity building:

1. Human
2. Organizational
3. Structural
4. Material

(Century, 1999). Human capacity includes intellectual proficiency such as knowledge and expertise as well as will, interest, patience, collaboration, and communication among

members of the organization. Structural capacity refers to the elements of the organization that exist independently of the persons who work within the system and can include such elements as policies, procedures, and practices. Material capacity refers to the fiscal resources, materials, and equipment the organization uses to meet its needs and implement targeted change.

Stage of Capacity

Capacity building occurs in four stages:

1. Exploration
2. Emerging implementation
3. Full implementation
4. Sustainability

The exploration stage involves creating a readiness for change (Fixen et al., 2009). During this stage, the organization identifies the need for change and learns about the innovation (Hall and Hord, 2005; Fixsen et al., 2009); individuals within the organization are aware that a problem exists and work with others to determine a course of action (Collerette, Schneider, and Legris, 2003; Kegan and Lahey, 1984; Levin, 1951). The emerging implementation stage of capacity building involves installing needed resources and initially implementing new skills or practices (Fixsen et al., 2009). During this stage, personal and management concerns related to innovation are identified (Hall and Hord, 2005; Kegan and Lahey, 1984), and the organization identifies personnel training needs, outlines specific steps in implementing and using the newly acquired skills, and begins to implement the information and skills as part of the organizational operations.

The full implementation stage of capacity building involves integrating new information and skills into a wide range of organizational practices and refining the practices based on evaluation of the changes (Fixsen et al., 2009; Hall and Hord, 2005; Kegan and Lahey, 1984). During this stage, attention is focused on the impact and consequences of implementing the targeted capacity-building innovation (Hall and Hord, 2005). The sustainability stage of capacity building includes pervasive and consistent use of



refined skills and practices. In addition, the organization demonstrates the capacity and ability to analyze and modify practices for continuous improvement and refinement of the innovation (Fixsen et al., 2009; Hall and Hord, 2005), and members of the organization collaborate on the innovation (Hall and Hord, 2005; Kegan and Lahey, 1984; Prochaska and Di Clemente, 1992), refocus efforts to continue the desired practices, and explore alternatives to using the innovation.

Level of Capacity

Levels of capacity focus on the personnel and system needs that must be addressed to successfully accomplish the desired capacity building (Hall and Hord, 2005; 2010). Regardless of the type or stage of capacity building, organizations need to successfully move through each capacity level to ensure full implementation of the initiative. These levels are based on the stages of concern that Hall and Hord (2005; 2010) identified in the Concerns Based Adoption Model (CBAM) and include four levels of capacity building: information, skills, structures, and processes. The initial level involves gaining sufficient information and knowledge regarding an initiative, followed by the need to acquire and use the skills necessary to implement the initiative. At the third level of capacity building, the information and skills need to be integrated into a structure that will incorporate the new knowledge and give staff a framework to use the new skills. Finally, the organization will then need to develop and use new or refined processes that will operationalize the information, skills, and structures that undergird the initiative. These levels are repeated as the organization moves through each stage of capacity building. New information and increasingly sophisticated skills, structures, and processes are needed as the organization moves through various stages of capacity building.

Outcome of Capacity Building

As organizations develop and implement interventions that will modify, refine, or change

the organization, one of three types of capacity-building change can occur: first-order change (developmental), second-order change (transitional), or third-order change (transformational) (Mock and Bartunek, 1987; Ackerman, 1997). It is important to understand the nature of the desired change and the context in which the organization works in order to select an appropriate capacity-building outcome and change strategy (Ackerman, 1997).

Developmental change, also known as incremental change, can be either planned or emergent and involves the organization's focus on the improvement of a skill or process.

Transitional change is planned and episodic and involves moving the organization from the existing state to a different desired state.

Transformational change results in significant differences in the structures and processes within the organization, and requires a shift in culture and beliefs among members of the organization.

Once the type, stage, level, and outcome of capacity are identified, these areas are placed on a capacity matrix template, and the capacity categories are highlighted—yielding a customized capacity needs portrait. The identified capacity needs are used to determine and craft the capacity-building activities, products, and outcomes that must be addressed in the initiative.

Using Grid Analysis and Decision Trees to Determine When and How to Conduct Capacity Building

Experienced change agents and technical assistance providers often commence and manage multiple initiatives at the same time, particularly in situations where services are offered in conjunction with a grant award or defined project year. In these circumstances, providers must review numerous requests, determine the primary needs of the organization or group, decide on the type of intervention or support to be afforded, and design a plan to deliver the services. As a result, technical assistance providers need a method to efficiently process requests and make decisions on the



appropriate services to be given. Two decision-making methods—grid analysis and decision trees—are especially useful in making service delivery decisions.

Grid Analysis

Grid analysis is a decision-making method that is particularly useful when several criteria and options are considered (McCloughlin and Matthews, 2012; Lunenburg, 2010). The grid is constructed by placing the criteria and descriptors in columns and the elements or factors in rows, forming a data or information table. Decision options are used as headings at the top of the grid, and all the relevant information and conditions related to that option are listed below the heading in elements or factors. The factors can also be weighted and numerical values given to the information, allowing for a cumulative score which can be used to determine the relevant choice from the factor combinations.

The criteria for using capacity building are displayed in a grid analysis template in Figure 2. The criteria describe the initiative conditions that should be in place for each of the five essential criteria and for the two important, but optional, criteria. The grid also displays the conditions that would lead to developmental support and those that point to the need for corrective action. Once the user determines if the conditions are in place for a specific initiative, the grid provides descriptors to determine if the needs expressed by staff members also warrant capacity-building support.





Figure 2. Grid Analysis Criteria for Determining When Capacity Building Should Be Conducted

Criteria for Determining When Capacity Building Should be Conducted ©2013 Professional Resources			
PART I: ANALYSIS OF THE CHANGE INITIATIVE			
Essential Criteria	Developmental Support	Capacity Building	Corrective Action
Commitment and Champion	Support for the change has not been created. A champion for the initiative has not yet been established.	The work is supported by decision makers and stakeholders. There is a broad range of support for the change. Staff and stakeholders demonstrate sustained effort and dedication to the initiative. One or more people have the initiative at the top of their agenda, plan the overall approach, drive the implementation, and promote the initiative. The champion has the skills to make the initiative successful.	Extent of support for the change is limited to compliance officers or program administrators and stakeholders.
Resources	Limited time and minimal or no budget allocations have been made to conduct the targeted initiative.	Sufficient human and financial resources have been allocated to complete the designated task.	Funds and staff Full Time Equivalency (FTE) allocations can be directed to the initiative within existing program budgets.
Task Complexity	The targeted task may be complicated but is not complex.	The initiative focuses on targeted skills and requires an array of capacities; specific information and skill proficiencies are essential to complete designated tasks; changes involved in the initiative are complex.	The initiative involves following identified procedures to attain adequate task completion.
Duration	The initiative involves one or more short duration tasks.	The initiative involves intensive, purposeful tasks and requires long-term or extended time to complete the work.	Timelines for partial or full task completion are established under program or policy guidelines.
Impact	Impact of the initiative is not known or identified.	The initiative generates a wide range of effect and impacts system priorities.	Impact of the initiative or targeted work is limited to designated programs or projects.
Desirable Criteria*	Developmental Support	Capacity Building	Corrective Action
Embedded	The work involved in the initiative is in an emergent state.	The initiative is embedded into long-term work and priorities of the organization.	The work involved in the initiative is tied to a specific program or project.
Change Strategy	The need for change has been identified, but a strategy or approach to implementing the targeted change has not been developed.	The organization has a specific strategy or approach to implementing change and sustaining the work.	The need for change has been identified and specific programmatic actions and interventions have been prescribed.



PART II: ANALYSIS OF STAFF NEEDS			
Essential Criteria	Developmental Support	Capacity Building	Corrective Action
Disposition and Will	Staff members do not recognize diminished performance or gaps in expertise.	Staff members involved in the initiative or targeted work recognize the gap in performance, are interested in improving, and are willing to engage in capacity building.	Staff members previously completed the target task but with errors or difficulty and are unwilling or reluctant to develop new knowledge, skill, and expertise.
Training and Professional Development	Staff members have not previously participated in professional development or have limited training related to the initiative or task.	Staff members previously participated in professional development training related to the initiative or task.	Staff members have participated in a series of professional development sessions on the programmatic and technical aspects of the initiative or task.

*Desirable criteria may be developed as part of the work of a specific initiative.

Criteria for determining how capacity building should be conducted are displayed in the grid analysis template shown in Figure 3. Unlike the previous example, which requires two decision points to be satisfied, this grid analysis involves selecting the best descriptor for each of the four elements of foundation capacity and creating a matrix profile that can be used to design and deliver a customized delivery plan.

While there may be several ways to use grid analysis (Lunenburg, 2010), two specific processes emerge as common ways to use the grid in determining whether to implement capacity building. First, the completed grid analysis template provides written descriptors of the essential criteria that must be in place for each of three options. The technical assistance provider can use the grid to quickly assess the presence of the criteria under each option and use the weight of evidence to determine best fit. Second, the grid analysis can be used as a preliminary and companion document to a decision tree. In the second method of use, the grid is prepared first and ensures that all important criteria is listed and incorporated into the decision. The grid analysis document can then be used as a reference document for a decision tree, providing a quick guide to other options not fully described on the decision tree.



Criteria for Determining How Capacity Building Should Be Conducted ©2013 Professional Resource			
Type of Capacity			
Human	Structural	Organizational	Material
Intellectual proficiency and will; knowledge, expertise, and understanding what is needed to implement the targeted change; interest, patience, and persistence	Elements of the organization that exist independently of the persons who work within the system; includes policies, procedures, and practices	Interaction, collaboration, and communication among members of the organization	Fiscal resources, materials, and equipment the organization uses to meet its needs and implement targeted change
Outcome of Capacity			
Developmental Change	Transitional Change	Transformational Change	
Improvement of a skill or process in a designated area	Institute change in an entire subsection of the organization	Large-scale, whole system change; requires a culture shift	
Stage of Capacity			
Exploration	Emerging	Full	Sustainability
Create a readiness for change; identify the need for change and learn about the innovation; be aware that a problem exists; recognize the need for change	Install needed resources and initially implement new skills or practices; identify personnel training needs; outline specific steps in implementing and using the newly acquired skills; begin to implement information and skills as part of the organization operations	Integrate new information and skills into a wide range of organizational practices and refine practices based on evaluation of the changes; focus on the impact and consequences of implementing the initiative	Perform pervasive and consistent use of the refined skills and practices; demonstrate the capacity and ability to analyze and modify practices for continuous improvement and refinement of the initiative
Level of Capacity			
Information	Skills	Structures	Processes
Knowledge needed to implement the initiative	Actions needed to utilize the knowledge gained	Framework that incorporates and uses the knowledge and skills	Procedures that operationalize the information, skills, and structures that undergird the initiative

Figure 3. Grid Analysis Criteria and Matrix for Determining How to Conduct Capacity Building

MDA Capacity Matrix Template MDA Capacity Matrix Template S. Harsh ©Professional Resources 2012				
MDA Foundation Capacity	Human	Material	Structural	Organizational
	Exploration	Emerging	Full	Sustainability
	Information	Skills	Structures	Processes
	Developmental	Transitional		Transformational



Decision Trees

Decision trees are especially useful in choosing between strategies, determining the impact of a decision, and considering various courses of action (Chelst, 2013; Lunenburg, 2010; Hulett and Hilson, 2006; Magee, 1964), making them especially useful for determining when and how to use capacity building intervention. A decision tree allows choices to be made on multiple criteria and perspectives such as hard data and expert opinion. It also has flexible design features and can be constructed around various charting formats, depending on the data to be displayed. Formats can include both burst nodes (splitting paths) and sink nodes (converging paths).

The main design of a decision tree is structured around the decision and its primary consequences. Most trees have at least two alternatives—some have multiple decision branches while others are designed as simple decision trees with only a single stage of decision. Complex decisions often contain multiple embedded subdecisions that require midpoint determinations that can alter the direction of the final decision.

The following graphic illustrates a two-part decision tree for determining when capacity building should be conducted (Figure 4). The decision tree has single connecting branches for each of the two subdecision areas, followed by a converging path for the final decision. In this tree, the user makes two initial decisions: (1) whether all criteria is met for the initiative in question and (2) whether staff members involved demonstrate the need for capacity building. Once each branch is satisfied, the converged path leads to a final determination that the initiative is appropriate for capacity-building technical assistance.

The final graphic illustrates a nonconverging multiple decision tree (Figure 5). This graphic uses criteria from four elements of foundation capacity with the user deciding the appropriate status for each element. The four decision points are placed on a capacity matrix, forming a portrait of capacity needs that can be used to design and deliver customized capacity-building services.

Conclusion

The literature on organization change and capacity development offers a set of criteria that can be used to identify the circumstances when capacity building would be the most effective intervention. In addition, the literature provides a second set of criteria to determine how the capacity-building process could be customized and conducted. Each set of criteria is incorporated into a grid analysis and decision tree that change agents and technical assistance providers can use to effectively make decisions on when and how to implement the capacity-building process. The decision tree and grid analysis methods are sufficiently robust to accommodate multiple options and decisions involved in complex change initiatives, and both methods can be used in conjunction with other tools to analyze and determine emerging capacity-building patterns.





Figure 4. Decision Tree for Determining When Capacity Building Should Be Conducted

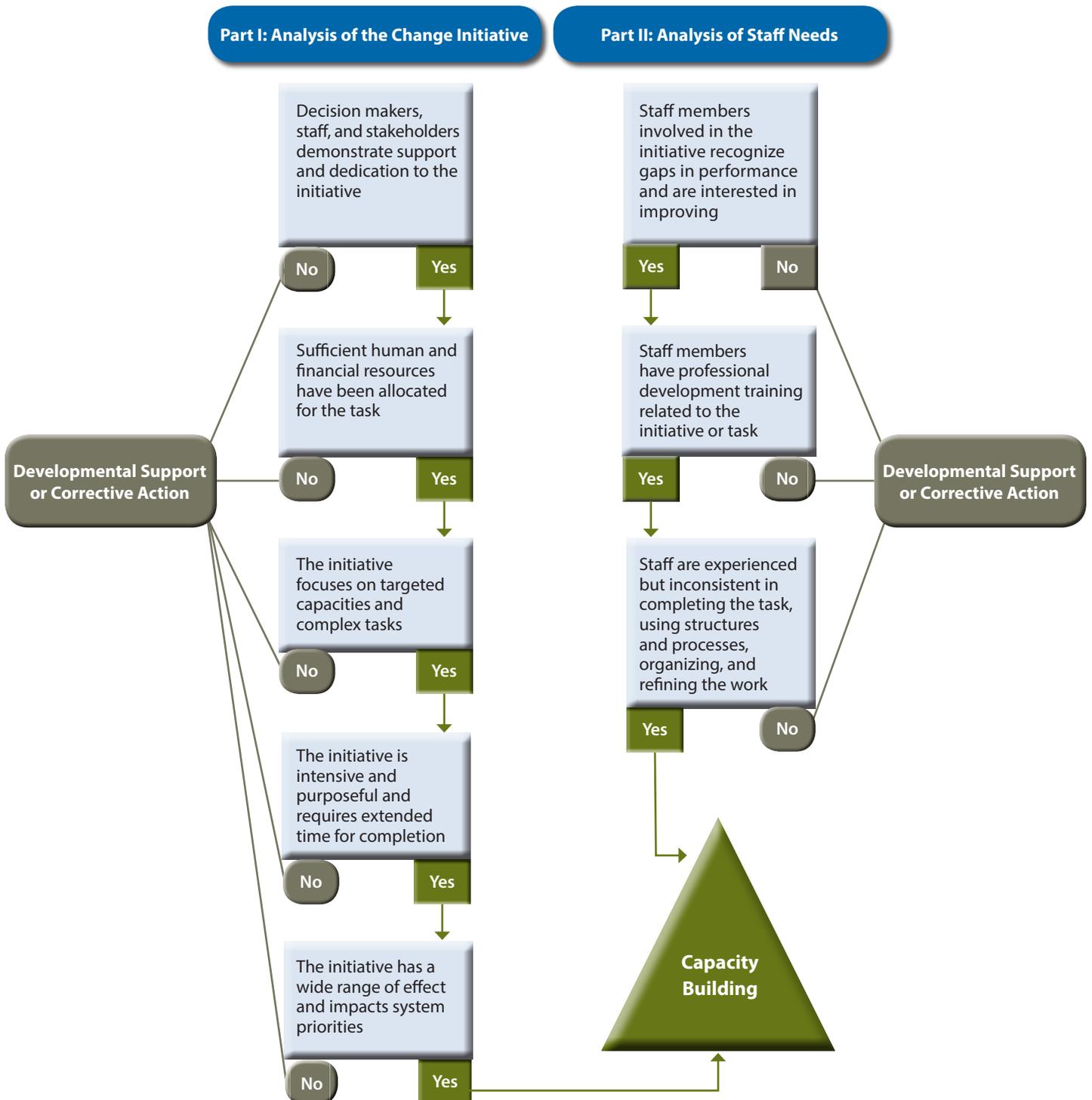




Figure 5. Decision Tree for Determining How Capacity Building Should Be Conducted

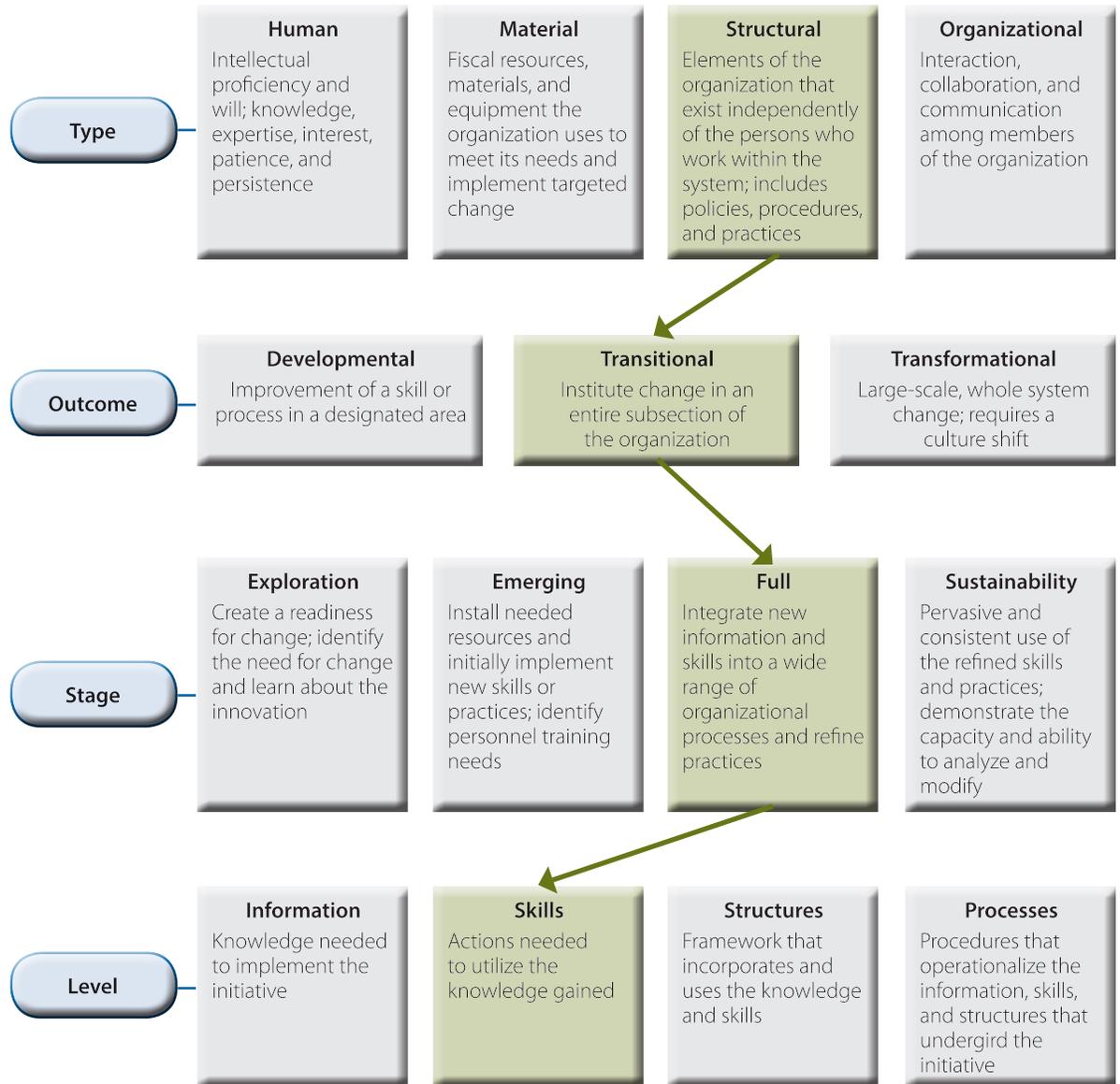




Figure 6. Sample Matrix for a Capacity-Building Initiative

Initiative: Customize an Instructional Improvement Process for Low-Performing Schools						
Foundation Capacities	Type	Human	Material	Structural Needs to create implementation frameworks and policy guidelines for an improvement process	Organizational	
	Outcome	Developmental		Transitional Needs to implement interventions in all underperforming schools; institute customized instructional models	Transformational	
	Stage	Exploration	Emerging		Full Needs to build capacity to use rubrics and frameworks to design, analyze, and refine classroom instruction and assessment	Sustainability
	Level	Information	Skills Needs to develop skill in selecting and using strategies and techniques to achieve targeted instructional goal		Structures	Processes



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About the Author

Sharon Harsh is currently employed as an Education Fellow and Director of the Appalachia Regional Comprehensive Center at ICF International. Dr. Harsh specializes in designing, implementing, and sustaining change; customizing and delivering capacity-building technical assistance; and incorporating cognitive elements of learning into the instructional process. Prior to joining ICF, Dr. Harsh was appointed executive director of Adaland Mansion Development, Inc. She also served as director of the Appalachia Regional Comprehensive Center (ARCC) at Edvantia, where she provided technical assistance to state education agencies in Kentucky, North Carolina, Tennessee, Virginia, and West Virginia. She developed a multidimensional approach to capacity building, along with a set of technical assistance tools used to deliver services in six states and has written numerous briefs and white papers on capacity building. She developed The Learning Chain as well as the Instruction and Learning Appraisal (ILA) used in districts and schools in four states.

Dr. Harsh was an assistant superintendent of schools for 24 years in Monongalia, Preston, and Barbour counties in West Virginia. She also worked as a teacher, school psychologist, attendance director, and director of special education. She has been an adjunct instructor at both the graduate and undergraduate levels. She holds certification in elementary education, music, developmental reading, public school administration, social services, and attendance and is certified as a school psychologist in West Virginia and Pennsylvania.

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