

ISPI's Performance Technology Standards

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Performance Standard 1

Focus on Outcomes

Focusing on outcomes—that is, results—puts you in a position to question, confirm and reconfirm that people share the same vision and goals, the job procedures support efficiency, and that people have the skills and knowledge they require. You determine what it is you are trying to solve. You measure the outcomes or results of an intervention and assess whether performance has improved as a result of it. Sometimes it is necessary to challenge the assumed answer to a problem or the expected event or activity of an intervention, and to focus instead on the accomplishment or business need that is the client’s true priority.

Focus on Outcomes		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> Determine the outcome or expected result of the assignment. You may: <ul style="list-style-type: none"> ❖ Help clients specify what they expect to change, or what benefit they expect to gain as a result of the effort or assignment. ❖ Help clients come to agreement on what they expect to accomplish. ❖ Guide or facilitate clients in focusing on accomplishments in deference to activities or events. Determine what will be measured or accepted as evidence that the business need was met. Explain the importance of focusing on accomplishments. 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Better evaluate if the effort was successful and produced outcomes of worth. ◆ Determine in the beginning what information will be collected and how it will be collected to measure accomplishment of the desired outcome. ◆ Communicate what the expected outcome is to team members and other stakeholders. ◆ Establish goals and performance measures with staff and key clients. ◆ Design your fact-finding (analysis) efforts and recommend solutions that are more likely to accomplish the desired outcome. 	<p><i>(Note your personal development plans here.)</i></p>

Focus on Outcomes (Continued)		
Performances	Criteria	Development Resources/Opportunities
	<ul style="list-style-type: none"> ◆ Celebrate and recognize those efforts that accomplished desired outcomes. <p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The results of your work and how you went about producing those results supported the client, the organization, or society's goals. 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Ask what it is the client wants to be different as a result of your doing the work.
- ◆ Confirm what the desired outcome is so you can better design your analysis, present a set of viable options, and judge how to best honor and fulfill the request.
 - ❖ Desired outcomes may include job or task proficiency, information dissemination, compliance with regulations, retention of employees, professional development, higher productivity, fewer errors, reduced costs, increased customer retention, etc.
- ◆ Determine what your client is trying to accomplish and what prevents them from accomplishing it, so together you can identify what your function has to provide in terms of training and performance improvement.
- ◆ Identify what staff require(s) to be outcome focused.
- ◆ Direct and train staff to be outcome focused.
- ◆ Act as a liaison between staff and clients to ensure both are working toward the same outcome.

Performance Standard 2

Take a Systems View

Taking a systems view is vital, because organizations are very complex systems that affect the performance of the individuals that work within them.

It is important to distinguish a systems approach from a process model. A process contains inputs and outputs and has feedback loops. A system implies an interconnected complex of functionally related components. The effectiveness of each unit depends on how it fits into the whole, and the effectiveness of the whole depends on the way each unit functions. A systems approach considers the larger environment that affects processes and other work. The environment includes inputs, but, more importantly, it includes pressures, expectations, constraints, and consequences.

Take a Systems View		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> 1. Identify the current work, workplace, or market environment in terms of how it affects organizational and group performance. 2. Identify the environment and culture of the work and workplace and how it affects organizational and group performance. 3. Identify if there is a lack of alignment between or among— <ul style="list-style-type: none"> ❖ Goals and objectives ❖ Performance measures ❖ Rewards and incentives ❖ Job/work/or process designs 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Determine if and how the work, workplace, or industry environment supports or impedes the desired organizational and group performance. ◆ Determine if and how the current culture supports or impedes the professed performance. ◆ Identify if and where there is a lack of alignment between or among key factors affecting the success of the solution. ◆ Determine if and how the barriers and leverage points support or impede the proposed solutions and the desired 	<p><i>(Note your personal development plans here.)</i></p>

Take a Systems View (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ Available systems, tools, and equipment ❖ Expectations and capacity <p>4. Identify barriers and leverage points, both in the workplace and surrounding your project, in terms of how these factors could affect processes; organizational and group performance; and the development, implementation, and outcome of your proposed solutions. You may identify—</p> <ul style="list-style-type: none"> ❖ Key political players and stakeholders ❖ Issues affecting the larger environment ❖ Pressures on key players, the business, the audience, managers, etc. ❖ Expectations around the project ❖ Workplace constraints and surrounding the project ❖ Consequences of various solutions or in not pursuing a solution <p>5. Drive conversations around the barriers and leverage points that have been identified. Discussions could include the following issues:</p>	<p>organizational and group performance.</p> <ul style="list-style-type: none"> ◆ Analyze how the proposed solutions will affect the greater environment of the organization as a whole. ◆ Determine whether and how the results of your work and how you plan on going about producing those results might jeopardize the client, the organization, or society’s well-being. ◆ Help ensure that the methods of deploying and the results of the project will have a positive impact on the client, the larger environment, and society. ◆ Increase awareness throughout the workplace of the benefits of a systems approach. 	

Take a Systems View (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ Constraints or pressures related to: <ul style="list-style-type: none"> -- Deadlines – Budget – Politics – Time – Regulatory issues – Product launch – Safety ❖ Leverage points, including— <ul style="list-style-type: none"> – Political players – Stakeholder support – Related initiatives within the workplace that support the goals of the proposed solution <p>6. Explain the benefits of taking a systems approach in a conversation, design document, or project plan. You may—</p> <ul style="list-style-type: none"> ❖ Point out the knowledge gained by looking at the larger picture surrounding a project or performance issue. ❖ Show how identified leverage points could be used to positively affect the project. 		

Take a Systems View (Continued)		
Performances	Criteria	Development Resources/Opportunities
❖ Discuss how identified barriers needed to be considered in order to increase the probability of a project's success.		

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Orient and train staff to have a systems view.
- ◆ Develop processes that enable staff to have a systems view.
- ◆ Model a systems view in your exchanges with other functional managers and key influencers in the organization.

Performance Standard 3

Add Value

Did you **add value** in the way you worked with the client and your suggested intervention? This is an assessment your client will be asked to make. You can set the stage for this by offering your clients a process that will help them fully understand the implications of their choices, set appropriate measures, identify barriers and tradeoffs, and take control.

Add Value		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> 1. Identify two or more possible solutions or courses of action. 2. Identify the worth of the requested solution or those under consideration, by comparing factors such as— <ul style="list-style-type: none"> ❖ Cost to design, develop, implement, and maintain each. ❖ Likelihood of adoption or use by the target audience. ❖ Probability of each solution achieving the desired goals. ❖ Implication or possible impact on the target audience, other employees, consumers, the community, etc. ❖ Ability of the organization to support each solution (reward the appropriate behaviors and results, provide the appropriate 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Establish at the start what will be used as evidence of success, accomplishment, or worth and communicate that to all vested parties (stakeholders). ◆ Determine that a mechanism exists to determine whether the gain was realized and to track early indicators of success so corrections are made. ◆ Determine if the assumptive base and the argument for or against a course of action is documented and communicated. ◆ State what tradeoffs were made and what value was gained, and conclude that the value outweighed the cost. ◆ State that what you do adds value and how you go about your work adds value. 	<p><i>(Note your personal development plans here.)</i></p>

Add Value (Continued)		
	Criteria	Development Resources/Opportunities
<p>communication/information systems and tools and equipment, maintain sponsorship, etc.).</p> <ul style="list-style-type: none"> ❖ Risks associated with the success or failure of each solution in terms of threats to safety, health, financial return, customer satisfaction, etc. <p>3. Recommend solutions that add value, are feasible, and are more likely to accomplish the goals or aims of the project with minimal risk.</p> <p>4. Describe the potential value added and how that value will be measured, such as—</p> <ul style="list-style-type: none"> ❖ Increased safety, utility, or customer or community satisfaction. ❖ Increased revenues. ❖ Avoided costs. ❖ Decreased errors, lost time accidents, time to market, cycle time, processing time, wait time, etc. ❖ Increased on-time delivery. ❖ Increased customer and employee retention. 	<p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The product of the assignment or the goal of the task is sound and beneficial to the organization. 	

Add Value (Continued)		
	Criteria	Development Resources/Opportunities
<p>5. Point out the risks, tradeoffs, and assumptions on which decisions or choices are based.</p> <p>6. Document—using a contract, memo of understanding, or description in project description—the expected value added, the costs (materials, resources, time, etc.), and a schedule of deliverables.</p> <p>7. Explain the importance of doing work that adds value and the importance of demonstrating the value gained.</p> <p>8. Contribute insights and call out implications throughout the work.</p> <p>9. Display honesty; push back, challenge assumptions.</p> <p>10. Represent yourself honestly, not as having expertise beyond your capabilities.</p>		

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Identify the driver, the reason for the request, the assumptions on which it is based, and what need or opportunity your solution is expected to satisfy.
- ◆ Distinguish between requests for solutions that—
 - ❖ Are required to bring new hires to proficiency
 - ❖ Are required to satisfy regulations
 - ❖ Are desired to satisfy an organization need or opportunity
- ◆ Present facts related to the request and point out the costs, risks, and odds of success, such as the following:
 - ❖ Lack of field support
 - ❖ Lack of technological infrastructure
 - ❖ Significant change in culture
 - ❖ Lack of incentive or consequence for using the solution
- ◆ Point out what other interventions may be required to fully realize the opportunity or satisfy the need, such as a change in rewards, a change in the way to give feedback, the need to adopt new or different tools, and the consequences of not providing these.
- ◆ Help the client identify success factors, risks, and associated direct and indirect costs.
- ◆ Guide the client or team in choosing the solution with the best value added.

For example, as a manager, you—

- ◆ Find out where the pain is or where the opportunities lie for the organization or key clients.
- ◆ You facilitate or participate in meetings on how to best relieve the pain or seize the opportunity.
- ◆ You challenge ideas that are based on faulty assumptions.
- ◆ You focus your function on providing those solutions that are aligned with the organization's goals and capability to actualize.
- ◆ You set up systems to track how your function adds value.

Performance Standard 4

Work in Partnership With Clients and Other Specialists

Work in partnership with clients and other specialists—that is, collaboratively. This means that you involve all stakeholders in the decision making around every phase of the process and that you involve specialists in their areas of expertise. Working collaboratively means that decisions about goals, next steps to take in the process, and implementation are all shared responsibilities. Partnerships are created from listening closely to your client and trusting and respecting each other’s knowledge and expertise, so you both can make the best choices about accomplishments, priorities, and solutions.

Work in Partnership with Clients and Other Specialists, That is Collaboratively		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <p>1. Collaborate with stakeholders, experts, and specialists, making use of their knowledge, capabilities, and influence. You may—</p> <ul style="list-style-type: none"> ❖ Identify stakeholders. ❖ Determine if other content expertise is required. ❖ Solicit other content expertise as needed. ❖ Incorporate stakeholders, experts, and specialists as part of the team, involving them as required. ❖ Establish collaborative relationships. ❖ Leverage the expertise and influence of others for the benefit of the client. 	<p><i>So you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Trust and respect each other’s roles, knowledge, and expertise. ◆ Leverage expertise and influence of others to the client’s benefit. ◆ Assure the voices of all vested parties are sought and integrated into the design of the instructional program. ◆ Share responsibility for all decisions concerning goals, next steps to take in the process and implementation. ◆ Make the best choices about accomplishments, priorities and solutions because you understand your client’s needs, challenges, and culture. ◆ Support the product of the assignment or the goal of the task. 	<p><i>(Note your personal development plans here.)</i></p>

Work in Partnership with Clients and Other Specialists (Continued)		
Performances	Criteria	Development Resources/Opportunities
<p>2. Take the initiative to define your expectations, working relationships, roles, responsibilities, etc. You may do the following:</p> <ul style="list-style-type: none"> ❖ Point out the benefits of collaboration and partnering. ❖ Increasingly expect to work in collaboration or in a partnership with each other. ❖ Anticipate resistance and respond accordingly. ❖ Anticipate issues and barriers. ❖ Bring misunderstandings to the surface to reconcile them. ❖ Give credit and acknowledge the support, endorsement, and contributions of your partners. 	<p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ All stakeholders are involved in the decision making around every phase of the process and specialists are involved in their areas of expertise. 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Ensure there is a program sponsor.
- ◆ Negotiate the sponsor's level of involvement and desired outcomes.
- ◆ Establish relationships with management from those functions that are your key clients and benefactors of your function.
- ◆ Establish relationships with all departments that are key to providing essential information, data, or assistance to ensure the following:
 - ❖ Their knowledge is brought to bear.
 - ❖ Their needs are satisfied.
 - ❖ You have a solid business case for change or the recommended solution.
 - ❖ You have the required support when it comes time for implementation.
- ◆ Engage those from other functions in ways that are mutually beneficial.
- ◆ Recommend specialists to assist in the design of solutions or interventions outside of your expertise (for example, compensation specialists, interior designers to help redesign work space and tools, information system specialists, etc.).
- ◆ Draw on the knowledge and expertise of specialists who can contribute to the development of the instructional strategy, materials, or delivery mechanisms.
- ◆ Convene clients and, either personally or through staff, facilitate meetings related to fact finding, uncovering resistance, setting priorities, weighing alternatives, etc.
- ◆ Convene partners and facilitate meetings related to fact finding, uncovering resistance, setting priorities, weighing alternatives, etc.
- ◆ Identify your clients' issues and needs and help support them in their efforts.
- ◆ Seek the voices of the learner, the learner's boss, and customers and integrated them into the design of the instructional program.
- ◆ Recognize the contributions of the subject matter experts and specialists.

Performance Standard 5

Be Systematic—Needs or Opportunity Analysis

Being systematic is extremely complex since it touches the remaining six standards that describe the human performance technology process. Each part relies on your having processes in place. All performances may or may not be performed, and all parts may or may not be completed in a specific order, based on the specific circumstances.

Analysis occurs in the beginning of the project. **Needs or opportunity analysis** is about examining the current situation at any level (society, organizational, process, or work group) to identify the external and internal pressures affecting it. Based on the examination, you determine if the situation is worthy of action or further study. The output is a statement describing the current state, the projected future state, and the rationale or business case for action or non-action.

As a specialist, you need to determine the scope of the analysis and identify the external and internal pressures affecting it to determine, in collaboration with your client, whether there are any needs worthy of further examination or action. The goal is to align the client's activities and priorities with that of the group being studied.

Functional analysis is about identifying what causes a gap between actual and desired performance. Given that you have results from a needs or opportunity analysis or a request from a client to solve a problem, you may identify what is required for performance at any level (societal, organizational, or work group). This type of analysis may be referred to as a functional, performance, or job/task analysis. The output is a description of activities; resources used or consumed; desired or required outputs and accomplishments; and other attributes of a well-performing society, organization, work effort, or process.

For the specialist, this standard is about identifying what currently makes up performance and what is required.

The types of analyses include the following:

- ◆ Job or Task Analysis—Identifies the required activities, information, processes used, and outputs produced and then compares that to actual practice.
- ◆ Process Analysis—Identifies the cycle time compared to process time; time at task compared to time on rework, waiting, or checking; resources consumed and the cost of those resources; and what drives activity (customer or product requirements).
- ◆ Work Environment Analysis—Identifies and evaluates the effectiveness and efficiency of feedback, the reward and incentive system, information and communication systems, work and process designs, and work tools and equipment.
- ◆ User or Audience Analysis—Identifies current expectations, perceptions, physical capability and capacity, and knowledge and skills.

- ◆ Communication Systems Analysis—Identifies and evaluates the availability, capability, capacity, upgrade ability, and cost to use and maintain.
- ◆ Market Analysis—Identifies the size, competition, growth, current and potential constraints or limitations, organizational expectations, initiatives, capabilities, and capacity.
- ◆ Data System Analysis—Identifies and evaluates the capability, capacity, availability, upgrade ability, and cost to use and maintain.

Be Systematic—Needs or Opportunity Analysis		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> 1. Determine the type of analysis required. 2. Develop a plan or process for conducting the analysis, including any of the following: <ul style="list-style-type: none"> ❖ Hypotheses ❖ Data-collection methods ❖ Audiences to be polled ❖ Sampling method ❖ Statistical treatment ❖ Sequence of activities ❖ Timeline ❖ Resources required 3. Develop any tools or documents, such as interviews, surveys, or observation forms, required to capture the data. 4. Conduct the analysis. 5. Analyze the data. 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Use analysis methods appropriate to the situation. ◆ Determine the question (hypothesis) you want to answer. ◆ Carry out the analysis at the appropriate level: individual, group, process, organizational, or societal. ◆ Develop recommendations on whether to act on the findings and how. ◆ Use data-gathering methods appropriate to the situation. ◆ Use sampling methods that follow recommended practices. <ul style="list-style-type: none"> ❖ If a representative sample was used, it lists the criteria for being selected. ❖ If a random sample was used, it (1) was of sufficient size to 	<p><i>(Note your personal development plans here.)</i></p>

Be Systematic—Needs or Opportunity Analysis (Continued)		
Performances	Criteria	Development Resources/Opportunities
<p>6. Interpret the results. You may—</p> <ul style="list-style-type: none"> ❖ Determine the magnitude of the gap in terms of criticality, frequency, cost or exposure, or lost benefit. <p>7. Build a business case for action or non-action.</p> <p>8. Make recommendations based on the results.</p>	<p>generalize from the results and support the statistical analysis used, (2) lists the criteria for being part of the population, and (3) describes how the sample was chosen.</p> <ul style="list-style-type: none"> ❖ If a stratified sample was used, the strata are listed, the size of the strata is shown, and the size of the sample by strata is shown. ◆ Use a survey format that complies with recommended practice, if a survey is used: <ul style="list-style-type: none"> ❖ Consistent use of scales ❖ Sufficient number of questions for statistical analysis ❖ Clear directions on how to complete the survey ❖ Piloted to confirm the questions and directions work as intended ❖ Standard method of analysis ❖ Documented method of analysis ◆ Use an interview format that complies with recommended practice, if interviews or observation used: 	

Be Systematic—Needs or Opportunity Analysis (Continued)		
Performances	Criteria	Development Resources/Opportunities
	<ul style="list-style-type: none"> ❖ Documented format ❖ Piloted questions ❖ Documented analysis method ❖ Accepted analysis method ◆ Correctly use documents or work products as a source of data: <ul style="list-style-type: none"> ❖ Documented sampling method ❖ Accepted sampling method ❖ Documented evaluation or comparison criteria for documentation or work products ◆ Identify the physical and technological opportunities and constraints in the work environment. ◆ Identify the actual work processes used to accomplish work. ◆ Identify the actual and expected outputs of the work. ◆ Identify the consequences and who the receivers of those consequences are. ◆ Identify what feedback systems are or are not in use and how effective they are. 	

Be Systematic—Needs or Opportunity Analysis (Continued)		
Performances	Criteria	Development Resources/Opportunities
	<ul style="list-style-type: none"> ◆ Identify the inputs that the workgroup has available. (Inputs include information, directions, requirements, expectations, etc.) ◆ Identify gaps between what is required and what actually occurs. ◆ Discriminate causes due to lack of information, knowledge, or skill from those due to inadequacies in the work environment, poor job design, inadequate feedback systems, lack of consequences, or poorly designed processes. ◆ Determine the feasibility or probability of eliminating the gap. <p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The plan is feasible given organizational time and resource constraints. ◆ The results are useful and valid. ◆ The process for conducting the analysis is cost and time efficient. ◆ Findings serve as guides for future work and provide information for later evaluation. 	

Be Systematic—Needs or Opportunity Analysis (Continued)		
Performances	Criteria	Development Resources/Opportunities
	<ul style="list-style-type: none"> ◆ The process for conducting the analysis is administered consistently and includes the voices of all stakeholders. ◆ The analysis method is applied to the level of completeness and accuracy required by the problem and its risks, and no more. 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you, in collaboration with your client—

- ◆ Identify the objectives of the analysis, who to involve, what data you require, how best to get the data, how the data will be used and by whom, and when you want to begin and end.
- ◆ Interview, observe, and check documents.
- ◆ Determine which needs or opportunities lend themselves to further analysis or a solution and what type of solution.
- ◆ Develop hypotheses regarding why the current situation exists. Some examples of this include (but are not limited to)—
 - ❖ Turnover due to ineffective supervisory practices
 - ❖ Current employees' abilities underutilized by the company
 - ❖ Purchasing practices having a negative impact on the local economy
 - ❖ One work group lacks troubleshooting skills

Performance Standard 6

Be Systematic—Cause Analysis

Cause analysis is about determining why a gap in performance or expectations exists. Some causes are obvious, such as new hires lack the required skills to do the expected task and, therefore, the solution must eliminate that gap. The output is a statement of why performance is not happening or will not happen without some intervention.

Be Systematic—Cause Analysis		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> 1. Use the gap to help determine the worth of determining the cause and establish criteria for measuring the effectiveness of a chosen solution. 2. Develop a hypothesis for why the gap exists. 3. Develop a plan or approach to test your hypothesis and identify the cause of the gap. 4. Implement the plan and identify the cause of the gap, such as— <ul style="list-style-type: none"> ❖ Lack of skills or knowledge ❖ Insufficient environmental support 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Differentiate performance problems that are caused by lack of knowledge and skill from those that are due to environmental, job, or process design; inadequate feedback or performance support systems; insufficient or inappropriate tools and equipment; conflicting objectives; or inappropriate performance measures. ◆ Determine how much certainty is required to support a solution. ◆ Determine which hypotheses (the cause of turnover, high cost of recruitment, poor morale, customer dissatisfaction, etc.) are supported by the data. 	<p><i>(Note your personal development plans here.)</i></p>

Be Systematic—Cause Analysis (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ Inappropriate rewards or incentives or measures ❖ Poorly designed jobs or processes <p>5. Report your findings.</p>	<ul style="list-style-type: none"> ◆ Note those instances where a solution is predetermined, such as training done in order to comply with regulations or for new hires who are known to lack the required skills and knowledge. <p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ Future design and development will cost effectively address the real need(s). 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you, in collaboration with your client, point out—

- ◆ Those performance deficiencies due to a lack of knowledge and skill that lend themselves to instructional solutions, such as training for new hires or for new systems, technology, or products.
- ◆ Where training is done to satisfy regulatory requirements, such as safety, hazmat, sexual harassment.
- ◆ Why a performance deficiency exists, such as—
 - ❖ Excessive turnover
 - ❖ Product defects
 - ❖ Poor performance
 - ❖ Inability to attract more qualified candidates
 - ❖ Poor morale and employee satisfaction
- ◆ Those performance deficiencies that are due to inadequate or insufficient environmental, job design, feedback, or performance support systems and that lend themselves to a non-instructional solution.

Performance Standard 7

Be Systematic—Design

Design is about identifying the key attributes of a solution. The output is a communication that describes the features, attributes, and elements of a solution and the resources required to actualize it.

For the specialist, you identify and describe one or more solutions in detail, what will be required to develop and implement them, which is preferred, and why.

Be Systematic—Design		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> 1. Decide on one or more solution set(s), such as— <ul style="list-style-type: none"> ❖ Process redesign ❖ Training ❖ Change/benefit 2. Define the desired performance. 3. Identify the objectives of the solution and all elements of the solution. 4. Develop a plan for accomplishing the objectives and elements that includes strategy and tactics. 	<p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The objectives, conditions, performances, performance elements, and criteria for judging learning, transfer, or adoption are sufficiently detailed. ◆ The assumptions, the aims or intent of the solution, the strategy for development and deployment, and the criteria for judging adoption and success are sufficiently detailed and sound. ◆ The required terms, concepts, rules, heuristics, principles, and procedures key to performance are present. 	<p><i>(Note your personal development plans here.)</i></p>

Be Systematic—Design (Continued)		
Performances	Criteria	Development Resources/Opportunities
<p>5. Agree on roles and responsibilities for stakeholders, high performers, and subject matter experts to be involved in the development and implementation of the solution.</p> <p>6. Identify key attributes of the proposed solution—such as learning strategy and tactics, transfer systems, feedback, etc.—for—</p> <ul style="list-style-type: none"> ❖ Data and communication systems ❖ Job or process elements ❖ Management practices (feedback, rewards, scheduling, promoting, performance measures, etc.) <p>7. Identify how the solution will be produced or actualized.</p> <p>8. Identify the resources required.</p> <p>9. Identify methods for delivering or deploying the solution.</p> <p>10. Identify how the solution will be maintained or reinforced.</p> <p>11. Identify methods for evaluating the effectiveness of the solution.</p> <p>12. Explain the rationale for the proposed methods, such as—</p> <ul style="list-style-type: none"> ❖ Evaluation 	<ul style="list-style-type: none"> ◆ The sequence of the content and tactics is sufficiently detailed. ◆ The materials used to actualize the solution are designed following instructional methods designed to enhance the likelihood of attaining the intended outcomes. ◆ The strategy and tactics for accomplishing the objectives (transferring knowledge, building skills, supporting performance, redesigning work processes and feedback systems, and aligning rewards and consequences) are sufficiently detailed. ◆ The method for evaluating the accomplishment of the objective and the effectiveness of the solution is feasible and sufficiently detailed. <p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The methods for deploying the solution are described. ◆ The methods for maintaining or reinforcing the solution over time are described. 	

Be Systematic—Design (Continued)		
Performances	Criteria	Development Resources/Opportunities
❖ Strategy and tactics	<p>The client understands the investment in time and resources necessary to develop and implement the solution and can provide the resources to actualize the design.</p> <ul style="list-style-type: none"> ◆ The target audience can participate in testing the solution. ◆ The information serves as a guide for future work and provides information for later evaluation. 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you develop a plan for how you intend to do the following:

- ◆ Accomplish the objectives. The plan includes a strategy, tactics, and key content elements (terms, concepts, principles, rules, heuristics, steps, procedures).
- ◆ Develop, produce, deploy, and maintain instructional materials.
- ◆ Confirm the accuracy of the content and the content elements, the usability of the materials and media—or to do a formative evaluation.
- ◆ Redesign a process, job, or system.
- ◆ Change management practices.
- ◆ Evaluate the effectiveness of the solution (summative evaluation).
- ◆ Change what behaviors and results get rewarded.

Performance Standard 8

Be Systematic—Development

Development is about the creation of some or all of the elements of the solution. It can be done by an individual or by a team. The output is a product, process, system, or technology. Examples include training, performance support tools, a new or re-engineered process, the redesign of a workspace, or a change in compensation or benefits.

For specialists, this standard is about creating or acquiring all or parts of the solution. You may choose to do it personally or, as part of a team, or you might outsource the effort.

Be Systematic—Development		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <p>1. Ensure that the chosen solution is developed according to design specifications. You may—</p> <ul style="list-style-type: none"> ❖ Assist in the development of electronic support systems, such as help screens or help desks. ❖ Participate in the development of a job, task, or process redesign. ❖ Participate in the development of a feedback system, reward and recognition system, communication system, or information system. 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Determine if the physical elements of the solution support the objective(s), are usable to the target audience, can be administered in the way intended, and can be maintained over time. ◆ Get timely, relevant data for the pilot or user tests. ◆ Ensure that learnings are fed back into the development. <p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The solution is effective or performs as expected and accomplishes the desired goal. 	<p><i>(Note your personal development plans here.)</i></p>

Be Systematic—Development (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ Participate in the development of a change strategy. ❖ Develop materials or methods to improve team processes, job procedures, work practices, or individual or group decision-making. <p>2. Conduct formative, pilot, and user evaluations of all elements of the chosen solution/product to determine if it performs as expected and accomplishes the desired goal(s). You may—</p> <ul style="list-style-type: none"> ❖ Engage high performers or experts in reviewing all materials or in creating a new process or system. ❖ Design and/or conduct a formative evaluation of all elements of the solution. ❖ Design and/or conduct pilot and/or user tests to determine readability, functionality, usability, etc. ❖ Compare formative, pilot, and user test results against design standards. 		

Be Systematic—Development (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ Determine if the physical elements of the solution support the objective(s), are usable to the target audience, can be administered in the way intended, and can be maintained over time. ❖ Ensure that learnings are fed back into development. 		

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Write or develop instructional materials or performance support materials, such as job aids, in a print or electronic.
- ◆ Coordinate the efforts of others who are developing materials.
- ◆ Participate on teams engaged in the design of work processes, feedback systems, performance support tools, work tools, and reward and incentive systems.

Performance Standard 9

Be Systematic—Implementation

Implementation is about deploying the solution and managing the change required to sustain it. The outputs are changes in or adoption of the behaviors that are believed to produce the anticipated results or benefits.

This standard is about helping clients adopt new behaviors or use new or different tools. You develop an implementation plan that includes how you or the client will track change, identify and respond to problems, and communicate the results.

Be Systematic—Implementation		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <p>1. Design a change strategy that includes the following:</p> <ul style="list-style-type: none"> ❖ How the effort (the message) will be communicated and to whom. ❖ What implementation materials and messages will be required and how they will be produced. ❖ A schedule of the rollout, including milestones, timelines, etc. ❖ How the new behaviors and other evidence of adoption will be recognized and rewarded. ❖ What to do in case of resistance. ❖ Who will provide support and reinforcement during deployment. 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Send a uniform message about the why, what, and how of the solution. ◆ Determine what tools and procedures the team responsible for implementation or deployment requires to effectively support implementation. ◆ Determine how best to track the speed of the deployment and any resistance. ◆ Determine how to identify and best handle resistance. 	<p><i>(Note your personal development plans here.)</i></p>

Be Systematic— Implementation (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ Roles and responsibilities of management, the target audience, and other vested parties. <p>2. Develop tools and procedures to help those involved in the implementation. For example:</p> <ul style="list-style-type: none"> ❖ Train the trainer sessions ❖ Job aids ❖ FAQs <p>3. Participate in the implementation or deployment of the solution.</p> <p>4. During implementation, solicit feedback related to the utility and relevance of the solution and use the information obtained in the following ways:</p> <ul style="list-style-type: none"> ❖ As a guide for future work and evaluation. ❖ To look at what worked and feed it back into the solution. ❖ By sharing it among key players to improve the solution and ongoing rollout. 	<p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ The information serves as a guide for future work and provides information for ongoing evaluation. ◆ The solution is delivered to the target audience. ◆ Change is sustained over time. 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Participate on a team to design a change or implementation strategy.
- ◆ Help develop implementation materials and messages.
- ◆ Help train people who will deliver the training, or assist the target audience in adopting the new behaviors, executing the new process, or using the new tools.

Performance Standard 10

Be Systematic—Evaluation

Evaluation is about measuring the efficiency and effectiveness of what you did, how you did it, and the degree to which the solution produced the desired results so you can compare the cost incurred to the benefits gained.

This standard is about identifying and acting on opportunities throughout the systematic process to identify measures and capture data that will help identify needs, adoption, and results.

Be Systematic—Evaluation		
Performances	Criteria	Development Resources/Opportunities
<p><i>You—</i></p> <ol style="list-style-type: none"> 1. State outcomes of the evaluation effort in measurable terms. 2. Design a measurement strategy or plan based on the program's or project's goals and outcomes. The plan includes the following: <ul style="list-style-type: none"> ❖ The program or project's key success indicators or goals in measurable terms ❖ How data will be collected and results validated ❖ The standard or goal against which results will be compared 	<p><i>So that you and the client can—</i></p> <ul style="list-style-type: none"> ◆ Determine whether the solution fulfilled the goal or satisfied the need. ◆ Determine whether data are valid and useful. ◆ Determine if the measurement methods and metrics are valid and useful. ◆ Make timely decisions about the need to change, alter, or intervene to better ensure the effectiveness of the solution. <p><i>So that—</i></p> <ul style="list-style-type: none"> ◆ Reports are useful and relevant to the reader(s). 	<p><i>(Note your personal development plans here.)</i></p>

Be Systematic—Evaluation (Continued)		
Performances	Criteria	Development Resources/Opportunities
<ul style="list-style-type: none"> ❖ How data from others will be incorporated or leveraged ❖ If and how evaluation expertise may be required <ol style="list-style-type: none"> 3. Develop the tools, instruments, and guidelines for collecting and interpreting data and selecting samples. 4. Measure the results of the solution <i>or</i> help the client evaluate the impact of the solution. 5. Identify what can be done in the future to improve the way in which needs and opportunities are identified and solutions selected, valued, developed, and deployed. 6. Report your findings and recommendations. 7. Explain the value of evaluating (ethics). 	<ul style="list-style-type: none"> ◆ Your methods and processes for analysis, selection and comparison of alternative solutions, and the design, development, deployment, and maintenance of solutions, are improved. ◆ The efficacy of the solution is ensured. 	

Examples (Note: The following list is illustrative rather than exhaustive.)

For example, you—

- ◆ Partner with clients and the target audience to identify ways to capture and track performance data.
- ◆ Evaluate the results of a program or project by gathering data and comparing what you find to some standard, goal, or client expectation.
- ◆ Model the importance of evaluation by evaluating your own methods and processes.
- ◆ Coach clients in issues related to sampling, the design of data-gathering instruments, how best to capture data, and how to interpret data.