Performance Architecture

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The next time you feel the world is moving faster than you can keep up, do not think you are dreaming because you are right. Here are a few statistics from Richard Saul Wurman's Information Anxiety, guaranteed to keep you up at night:

- There has been more information produced in the last 30 years than during the previous 5,000.

- A weekday edition of The New York Times contains more information than the average person was likely to come across in a lifetime during the 17th century in England.

- The information supply available to us doubles every five years. As proof of this global shift from the Industrial Age to the Information Age, an estimated two-thirds of all U.S. workers currently work in the service sector—where "knowledge" is the "product". (Peter F. Drucker, Post-Capitalist Society.)

Amidst cut-throat competition from the global marketplace and the need to manage this deluge of new information, many corporations still face the same training dilemmas as in years past; but now, with so much information available, the stakes are higher and the need to cost-effectively train employees is more pronounced.

Until recently, the field of training has traditionally been practiced as a separate and distinct discipline, apart from other business activities. But a paradigm change is emerging within the field that takes a more integrated, business-oriented, and performance-based approach to training challenges. This approach, called Performance Architecture, is a melding of the disciplines of Human Performance Technology and Information Design. It delivers the performance solutions required by businesses today, with an eye on the benefits and results.

Human Performance Technology

A recent survey in Training magazine found that U.S. companies spend an estimated $52 billion annually on training expenses, and when you add in the salaries of employees spending time in training off-site, that amount reaches nearly $100 billion. This excessive cost and the lack of effective change resulting from traditional training methods, has forced many companies to rethink their performance matrix and the training process.

The effectiveness of traditional training techniques is being called into question more and more, as many managers see little or no connection between training and business objectives. However, many trainers today are expanding their role to improve employee performance while helping to achieve organization-wide goals. This expansion of seeing the work, the worker and the workplace as integral components of the training function is called Human Performance Technology.

Human Performance Technology is a systematic set of methods, procedures and strategies for solving problems, or realizing opportunities, related to the performance of people. It can be applied to individuals, small groups, teams and large organizations by employing interventions such as training, communication, organizational development, work/job design, performance management, staffing, environmental engineering, ergonomics, motivation, as well as rewards and incentives. Human Performance Technology also takes into consideration one of the most important factors in determining the success of any program—the culture of the organization. Cultural factors include the organization's mission, vision, values, beliefs, and management practices. Culture is also a function of line-staff relationships, power and status, policies and procedures, communications, motivational systems, stories and legends, corporate identity, and the physical workspace.

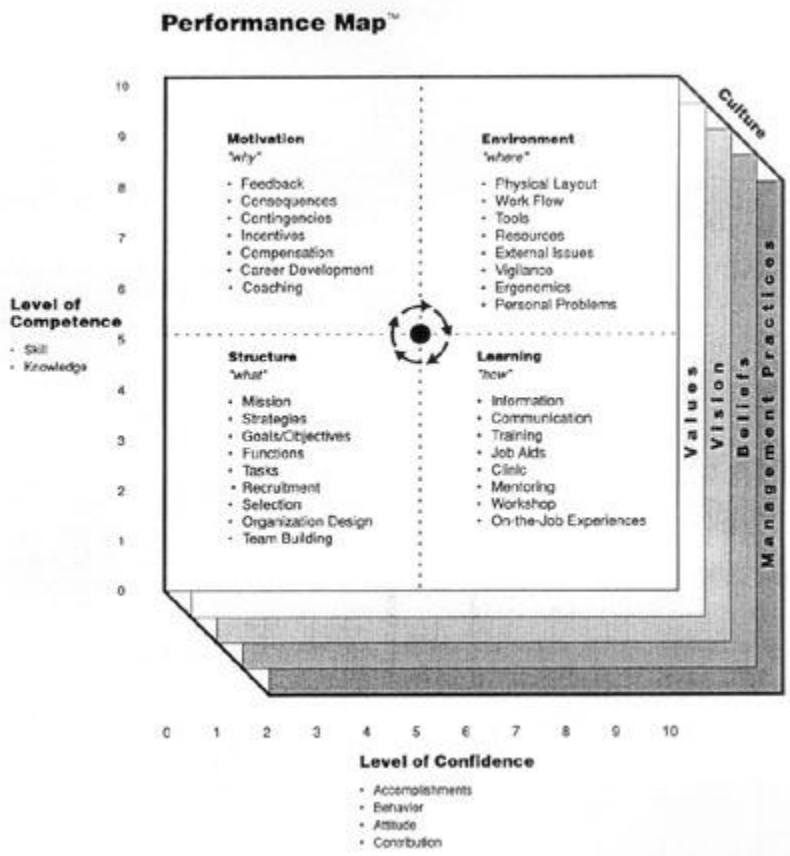
Fifteen percent of all business problems are attributable to workers and supervisors—not following directions, absence from the job, and pushing the wrong button. The remaining 85 percent are faults of the system that only management can solve. Examples are poor product design, poor equipment design, and poor instruction. The days when top managers can sit in their plush offices and honestly say, "If the workers did a better job, we would produce more and make more money," are gone forever. (Doug Hall, Jump Start Your Brain.)

As we rethink the training model, it is important to consider solutions that can cut through all levels of the corporation to enhance performance. The Business

Pyramid helps us to clearly see and understand the interrelationship of the different levels to determine how to apply a broad-based performance enhancement system.

The Business Pyramid

One way to help companies move from the myopia of stand-alone training programs to a systems approach is through the use of the Performance Map, a job aid for analyzing and diagnosing performance-related problems in an organization. The four key reference areas include: Structure (the "what"); Motivation (the "why"); Environment (the "where"); and Learning (the "how"). Structure is the foundation upon which the organization stands. The Environment is composed of the external and internal conditions that affect the growth and development of the organization. Motivation is comprised of the emotions, desires and psychological needs that incite action. And Learning increases employee proficiency in a given area.



Using the Performance Map is a simple, six-step process.

First, as the human performance technologist, you must first ask questions to discern the level of competence—the skills and knowledge— of the employees.

Then, you must ask each respondent to rate the level of competence on a scale of one to ten, one being the low point. Sample questions may include, “What skills do your employees need to complete the job?” or “Tell me about what your employees do on the job.”

Next, ask questions probing for accomplishments, behavior, attitude, commitment and contributions to determine the level of confidence. Sample questions include, “Tell me about the general attitude of your employees toward the job” or “What accomplishments would you like to see from your employees?”

How the client answers similar questions will help you diagnose the most common areas of organizational problems and, in turn, prescribe a series of interventions. If the diagnosis turns out to be a structural deficiency, then

possible interventions can include activities that will develop goals and objectives for the individual or group, and will identify a mission for the individual or group.

If the problems are linked to motivation, you can develop an incentive program, revise the compensation package, and/or develop career paths for each position.

To remedy environmental problems, interventions can include programs that alter the physical layout or the workflow of the department.

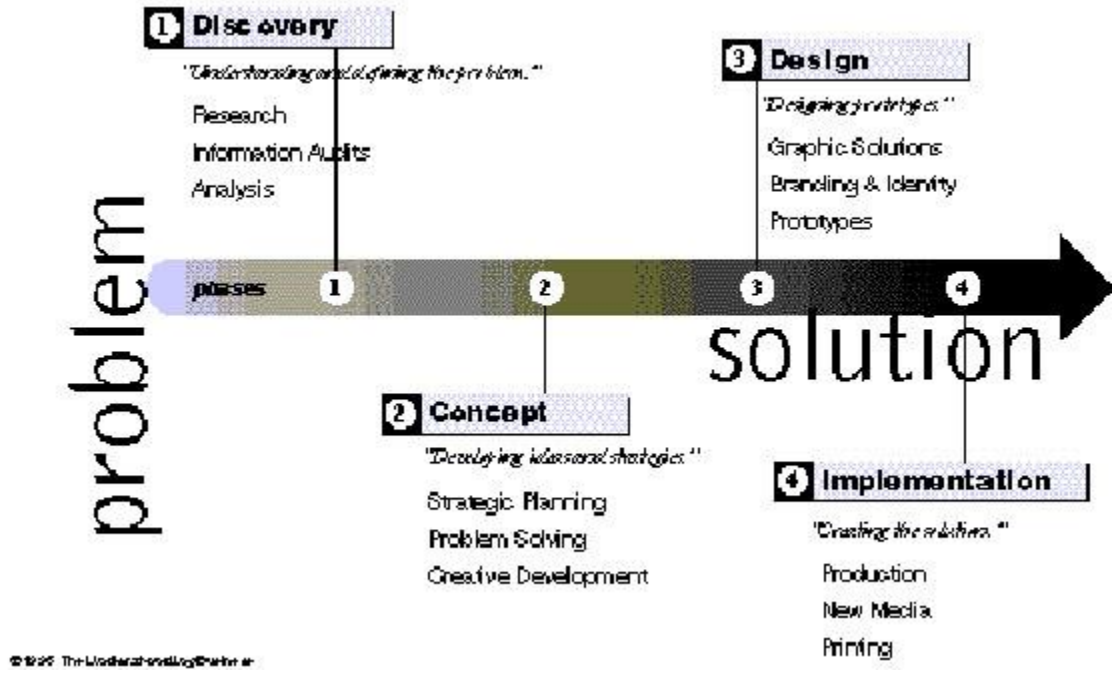
Environmental issues can also be linked to personal problems or other external factors.

If the problem turns out, in fact, to be Learning, then you can develop training job aids or a mentoring program, for example. But, keep in mind that once you have made your diagnosis, take care not to rule out other areas. Most likely, these other areas will influence the outcome of your diagnosis. However, your prescribed interventions must work within the organization's culture.

Information Architecture: The Design Process

The trend toward the Performance Architecture approach to solving performance-based problems also requires a better approach to designing the needed materials and tools. These tools need to be better integrated into the day-to-day workplace and need to focus on results and action, rather than isolated quick fixes. This unique design process, called Information Architecture, begins with the Discovery Phase. This phase considers key business issues which need to be addressed, and incorporates them into a training or performance-enhancement system. The Discovery Phase examines the existing situation, the training materials, as well as the users of that material. Through a process of research and analysis, new ideas and approaches to performance solutions are considered.

The Concept Phase engages you in creative problem solving and strategic planning with the information uncovered in the Discovery Phase. The solutions created here are likely to challenge the premise of the tools and materials used in traditional training practices.



The Design Phase in the Information Architecture process outlines the method for the visual layout of the information. Branding and identity elements are among the tools that allow customers to readily recognize a company's products or services.

Likewise, this process can also be used to provide employees with a visually interesting, logical and memorable means of learning and processing information. After a prototype of the intervention or performance-enhancement system has been developed, the process of user testing begins. Market testing can provide critical insight into the success or failure of the new system. For example, does the intervention remedy the workers' problems in the context of the work and fit in with the culture of the workplace? If the answer is "no", then the intervention will not be successful.

The Implementation Phase, the last stage of the Information Architecture, guides the delivery system of the information to make it as effective as possible. This phase governs the production, printing and/or the electronic dissemination of the information.

Performance Architecture: Product to Results

An ancient Sufi tale relates the story of three blind men as they encounter an elephant. Grasping an ear, the first man exclaims, "It is a large rough thing, wide and broad, like a rug." Feeling the trunk, the second man says, "I have

the real facts, it is a straight and hollow pipe." The third man, who grasped the elephant's front leg cried out, "It is mighty and firm, like a pillar." Now imagine that these men are actually heads of three different departments in a corporation trying to solve company-wide performance problems. Each man will likely try to solve the problem from his own perspective—from his own "snapshot" of what he perceives is the problem.

As we learned, systems thinking, or "seeing elephants", is a discipline for seeing the structures that underlie complex situations. This approach teaches us the importance of seeing interrelationships, rather than single "snapshots" or linear, cause-and-effect chains.

In terms of analyzing the Performance Architecture system, "seeing elephants" means viewing learning as a process versus a stand-alone product, and evaluating success in terms of the essential information communicated, and more importantly, of the benefits and results produced. These benefits and results should include a significant decrease in time spent off the job, low-cost training alternatives and overall increased productivity. Performance Architecture considers the lessons learned from the failures of traditional training principles and builds anew from these failures.

Conclusion

Referring to the aforementioned Sufi tale, author Peter M. Senge notes in his book, The Fifth Discipline, that sometimes some people try to carve the elephant in half anyway: "You don't have two small elephants then; you have a mess. By a mess, I mean a complicated problem where there is no leverage to be found because the leverage lies in interactions that cannot be seen from looking only at the piece you are holding." Senge states that tackling and solving difficult problems is often a function of seeing where the high leverage lies. The "leverage" is usually a change made in a nonobvious area, usually with a minimum of effort, that leads to lasting, significant improvement.

Futurist, inventor, and philosopher Buckminster Fuller had a metaphor for the principle of leverage—the trim tab. A trim tab is essentially a small rudder located on the main rudder of a ship. It is designed to make it easier to turn the ship's rudder, which in turn, makes it easier to turn the ship. The larger the ship, the more essential the trim tab becomes in turning the ship, due to the large volume of water flowing past the rudder. A small amount of leverage applied on the trim tab creates a significant pressure differential on the rudder, which, in turn, makes it easier to turn the rudder. This well-orchestrated system of leverage is completely nonobvious until you

understand the underlying forces governing the system. As Senge states, "There are no simple rules for identifying similar high-leverage changes, but there are ways of thinking that make it more likely. Learning to see underlying "structures" rather than "events" is a starting point...Thinking in terms of processes of change rather than "snapshots" is another."

Likewise, the new discipline of Performance Architecture, created from the melding of Human Performance Technology and Information Architecture, creates the leverage needed to forever alter the field of traditional training. Performance Architecture offers a logical, systems-based approach to identifying, creating and implementing performance-based, results-oriented interventions and tools that are highly integrated and consider aligning the work, the worker and the workplace in their proper context.

About the Authors

Dr. Roger M. Addison

Roger M. Addison is an internationally respected practitioner of Human Performance Technology (HPT) and performance consulting. As vice president and manager at Wells Fargo Bank, Roger's current responsibilities include executive education, change management and partnering with line managers to improve performance. In addition to his work at Wells Fargo, he consults with other Fortune 500 companies to help them align their business needs with bottom line results. Roger has successfully implemented performance improvement initiatives in a number of organizations and has also authored numerous articles about Human Resource Development and Performance Technology.

Roger is a frequent speaker at the International Society for Performance Improvement (ISPI), the International Federation for Training and Development Organisations (IFTDO) and the American Society for Training and Development (ASTD) on topics including: Performance Technology, Reengineering, Information Design, Mentoring, Consulting, Project Management and Communication Networks. Roger is a director of Pocket Coach Systems, a performance improvement system used by companies to enhance employee productivity.

Roger is a past president of ISPI and is currently Director of Marketing for IFTDO. Roger has received ISPI awards for Member of the Year, Organization of the Year, and Outstanding Product. As an international delegate to IFTDO conferences, he has given presentations throughout North America, Asia, Europe and Africa. Roger earned his Doctorate and

Masters degrees in Educational Psychology from Baylor University. He served five years on the Extension faculty at the University of California at Berkeley as course developer, instructor and program advisor.

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Mark G. Johnson is president and creative director of The Understanding Business, an information design and consulting firm in San Francisco that is dedicated to making information clear, memorable, and useful. TUB creates print and electronic products that enhance performance and make business more effective and profitable. The company's services range from development, design, and production of catalogs, directories, and promotional collateral for Fortune 500 companies to cartography, instructional design, new media design and interface navigation and organization.

Prior to co-founding TUB in 1987, Mark managed and directed projects for the Jerde Partnership, an architecture firm in Southern California. His work included the design and construction of the 1984 Olympic Village in Los Angeles.

From 1980 to 1985, Mark was on the faculty of the Otis Art Institute of Parsons School of Design, and in 1986, was chairman of the Interior Architecture department. Currently, Mark is a chairman for the College of Environmental Design Alumnae Board at Cal Poly, Pomona.

Mark earned his B.A. with honors in architecture from California Polytechnic University at Pomona and is a registered Architect in California. His affiliations include the American Institute of Architects (AIA), the International Society for Performance Improvement (ISPI), the International Federation for Training and Development Organisations (IFTDO), the American Institute for Graphic Arts (AIGA), and the Society for Human Resource Management (SHRM). He was recently named the 1996 Distinguished Alumnus at California State Polytechnic University for the College of Environmental Design.