Looking in the Mirror: Performance Improvement for Performance Improvers

by Julian Martin, CPT, Carol Goldsmith, CPT, Kristin Hodges, and Peggy Parskey

he new Hewlett-Packard: The largest merger in technology history, intense organizational change, the integration of two different corporate cultures, and the new Workforce Development (WD) organization challenged with the development needs of a new company with a combined workforce of 140,000 employees and revenue of \$72 billion.

While all this change was occurring, WD was facing its own reinvention—not just as a new organization, but as one undergoing a paradigm shift from being a training provider to an exciting new role: embracing human performance technology (HPT) to provide our business partners with consultative, performance-oriented solutions.

The challenge facing our team was to help WD professionals become HPT practitioners. But how could we best make that change? In her address at the 50th Anniversary of the U.S.–Japan Friendship Treaty, in 2001, our CEO, Carly Fiorina, recalled the experience of Hewlett-Packard's reinvention, stating, "The process of change is a constant assessment that involves looking out at the world and assessing what is worth aspiring for, looking in the mirror, and looking at ourselves honestly—seeing the truth and acting on the truth."

Carly's words are a succinct analogy of HPT: aspiring to the desired state, making an honest appraisal of the actual state, obtaining a truthful assessment of any performance gap, and acting on it. We quickly realized that integrating HPT methods into WD was, in itself, an HPT program, albeit a daunting one. We were not focusing on some anonymous workforce; we were going to have to take that long, hard look in the mirror and be completely honest about ourselves.

Against this background we embarked on our journey to use HPT as a metaprocess to integrate HPT methodologies into WD processes. Our Performance and Learning Solutions Lifecycle, or simply the Lifecycle, as it became known, sought to provide a comprehensive end-to-end methodology for the creation of performance solutions.

Analyzing Our Own Performance

Analyzing the desired state of WD was straightforward enough. During the formation of the new Hewlett-Packard, WD had embraced a new mission: "To develop the most competitive and committed workforce in the world, as measured by our customers, shareowners, partners, and employees."

Developing a workforce of the size and diversity that existed in the new Hewlett-Packard, to the high standards articulated by our mission statement, was a great responsibility. Within any large enterprise, there are many factors that affect the ability of the workforce to perform to the expected level. In our case, the scope of our effort was amplified by the sheer scale and complexity of the merger we were undertaking.



We recognized that WD would have to address a wide range of performance factors if we were to achieve our mission, and that would require WD to move beyond its traditional training role. Energized by the need to engage with workforce performance issues beyond this training focus, people throughout our organization began developing a new vision for WD. By the early part of 2002, Susan Burnett, vice president for WD, led a number of presentations articulating the organizational vision for WD, which stated:

Workforce development is in the consulting and services world and our people need to be using standard proven methodologies and tools to accomplish their work. We need to implement a workforce development process architecture and environment so that we can have shorter time to market with more predictable, high-quality outcomes. We also need to manage our global content more effectively so we can easily access, store, retrieve, and reuse.

The desired state vision was clear and ultimately transformational. As a consultative partner with Hewlett-Packard's businesses, WD had to become an organization that could apply HPT as a methodology for the creation of performance programs.

Analyzing the actual state of our organization was more challenging, but we did not have to start from scratch. Burnett had brought together more than 70 decentralized training organizations in 5 businesses, 17 product categories, 4 regions, and 10 functions. The work undertaken by our team, and many others during this organizational formation, had amassed a vast inventory of best practices, skills, competencies, and common processes from all premerger Hewlett-Packard organizations. Further input was sought from pre-merger Compaq colleagues, and an extended "virtual" team of subject matter experts was formed, representing all business units and functions from both companies.

Although there were pockets of HPT expertise within the organization, from the analysis of the actual state it was clear that WD's workforce could not consistently apply appropriate HPT methodologies to resolve workforce performance issues. Obviously, there was a significant performance gap between the desired and actual states, and initial analysis determined that many benefits would accrue if we could minimize this gap. Moving on to examine the possible causes of the performance gap showed that we had significant work to do.

Examining the Causes and Selecting the Solutions

In his book *Human Competence: Engineering Worthy Performance* (1978), Thomas Gilbert proposed his behavioral engineering model as a method of troubleshooting and

modifying behavior. To précis Gilbert's work, he asks us to consider the following categories which may have a bearing on the ability of the workforce to perform:

- Information: Do people know what is expected of them, do they have enough data with which to perform their job?
- **Instruments:** Do people have the right tools, materials and processes to do their job effectively, or could these be improved?
- **Incentives:** What is in it for the individual if they perform well? Are incentives predicated on good performance or are there incentives which work against good performance? Do people know what the incentives are?
- Knowledge: Could people perform to exemplary standards if their lives depended on it? Or would they simply not know how?
- Capacity: Do people have the aptitude, intelligence or physical characteristics required for exemplary performance? Could they learn how to perform well?
- Motives: If all else in the performance system was sound, would people still require additional motivation to perform?

This behavioral engineering model has become a standard, structured way of thinking about how environmental support and a person's repertory of behaviors leads to worthy performance. As WD adopted HPT as the approach for moving the organization from a training-orientation one to one focused on performance improvement, we understood the importance of analyzing the barriers to the introduction of the Performance and Learning Lifecycle. Gilbert's model became our guide, ensuring that we identified all causes for the performance gap we had discovered and devised a suite of solutions to address those causes.

During our cause analysis, we determined that we needed performance solutions to address workforce performance barriers around processes, tools, e-enablement, competency development, and communities of practice. These needs were as follows:

· Creating common processes, templates, tools, and standards: Having integrated so many organizations into a single unit, it was not surprising that we did not have a single consistent methodology from which to work. Prior to this integration, each training organization had been owned by a specific business unit or region within Hewlett-Packard and had been structured to serve the needs of that business or region. Thus, they had different processes to engage with their business sponsors, different methods of developing solutions, different criteria that would drive the provision of training, and different instructional design (ID) methodologies. Furthermore, within each of the legacy organizations there were different degrees of rigor with which these various processes, tools, and methodologies were applied. We quickly recognized that achieving Susan Burnett's vision required the development and deployment of common processes across the enterprise.

Moreover, we knew that our model had to integrate wellestablished processes such as ID and evaluation into our performance framework.

- Making it all available through e-enablement: Ultimately, all our work needed to be available on the company intranet. We had to build a performance support portal that would enable experienced ID or HPT practitioners to quickly access the tools needed for their work and would become the one-stop shop for WD professionals. At the same time, the portal had to accommodate the needs of novices who might need additional support and guidance through the process.
- Building competency in our workforce: Many WD professionals had grounding in ID. However, the background of our solution owners was varied. Some were schooled in traditional methods of ID, some had a technical background in various aspects of computer architecture and information technologies, and others had a solid understanding of the business or function to which they were assigned, but lacked ID expertise. However, only a small percentage of our professionals had any knowledge or experience of HPT. Clearly, we needed to establish a baseline competency level in HPT and critical solution development methodologies. Furthermore, we needed to provide a longer-term roadmap so that our professionals could continue to develop broader and deeper capabilities in the areas of analysis, design, development, and evaluation.
- Enabling communities of practice: With any transformation, behaviors change slowly. We knew that early adopters needed to link with others on the leading edge. Similarly, new practitioners wanted opportunities to continue learning from experts and to share best practices and experiences. Consequently, our suite of solutions included ongoing communications and the facilitation of communities of practice.
- Integrating our business processes into the Lifecycle: While the key puzzle pieces were in place, we recognized that smoother adoption would come from a seamless integration of the Lifecycle into our day-to-day business processes. Therefore, as part of the Lifecycle rollout, we presented owners of other operational processes with a value proposition: If they used the Lifecycle in the development of WD solutions, we would be able to incorporate trigger points at appropriate places to let solution owners know when they should engage with them. Since the owners of our procurement processes, our information technology processes, our communications planning, and our deployment processes were often challenged by requests for their assistance at a very late stage, this proposal to integrate quickly gained acceptance and the team began to get requests to bring together critical development and operational processes into the Lifecycle.

Moreover, these categories of need were like puzzle pieces that had to be integrated and fit together. We built a model

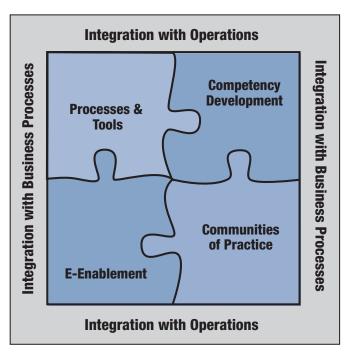


Figure 1: Integration of Solution Elements.

to visualize how these pieces should fit together and how they should integrate within an external framework of our core business processes (Figure 1).

We put our priority on ensuring that we had solutions to address the major causal categories and make sure that the puzzle pieces fit together in the middle of our model, then turned our attention to how we could integrate the Lifecycle into the external frame.

Creating Common Processes, Templates, Tools, and Standards

As HPT and ID practitioners, we believed it was paramount that our processes use standard, industry-recognized processes. So we began by ensuring that our process aligned with the current thinking of acknowledged experts and leading-edge research. We also identified a need to create guides, allowing new practitioners to follow industry-accepted approaches, along with templates and resources for further information. These tools and guides all had to be integrated with our performance process and consistent with our operational and business processes.

Once we had determined the overall approach, we set our sights on integrating ID and evaluation into our process.

ID Integrated Into HPT

Each of the former training organizations was using different methods for ID. Some used processes based on the various works of Robert Mager (1997), some used their own methods with Bloom's Taxonomy as their foundation; there

was a sizeable following using the Stolovitch FasTrak methods (Harold Stolovitch and Erica Keeps' FasTrak Instructional Design Course) and a number of variations on these themes. There was also a widely varying degree of rigor with which these processes were applied from country to country. With the new WD coalescing into a single organization, we saw an ideal opportunity to consolidate the ID methods in use across the enterprise and embed a new, consistent ID process into the larger Lifecycle.

Embedding ID into the Lifecycle was not quite as straightforward as one might imagine though at first it seemed like an easy task. We would simply direct the users of our Lifecycle to use ID as an HPT sub-process once their solutions selection had determined the need for training. However, it quickly became clear that ID processes, as part of an HPT solutions portfolio, have to produce training solutions that are tightly integrated with all other solutions. The breakthrough came with the concept of developing a strategic plan that identifies how each individual solution progresses through the design, development, and implementation phases, while maintaining linkages and integration with the overall solutions portfolio.

This breakthrough enabled the Lifecycle team to demonstrate a basic philosophy of the performance-based approach. If a training solution is identified as one of several solutions to a performance gap, it is critical that this solution continue to be linked throughout the Lifecycle to the other solutions. For example, in developing new competencies for our sales force, one key component is training on new skills and behaviors with executive clients. However, that training is only effective when tied with a mentoring program by experienced salespeople. The training program was consequently developed from the outset as part of a larger program.

By augmenting our newly refurbished ID processes with this logic and incorporating it into the portal, we created a robust methodology, providing our solutions owners with the tools,

resources, templates, and logical workflow to seamlessly incorporate the production of training into the Lifecycle.

Evaluation Integrated Into the Lifecycle

If a critical performance solution fails to produce the desired results, Hewlett-Packard pays the price in terms of lost production, lower quality, increased waste, or diminished ability to capitalize on new opportunities. Successful evaluation

is the only way to measure the degree of success of WD performance solutions and articulate that success in business terms.

Although Donald L. Kirkpatrick (1998) originally focused on the evaluation of training events in developing his four-level evaluation model in 1959, we considered that this model was sufficiently robust to extend its use beyond training and apply it to the evaluation of all performance solutions. We realized that if we wanted WD professionals to consistently apply evaluation methods to the measurement of their performance solutions, we needed to integrate evaluation very tightly into the overall process.

To achieve this integration, we had to dispel the notion that evaluation only happens at the end of a cycle. We consequently designed evaluation as a separate but integrated process. By linking tasks required for the creation and implementation of evaluation instruments to the appropriate phase of the overall Lifecycle, we are able to present the user with evaluation considerations at each stage in the creation of their solution. By connecting the user to the specific models and tools they require at each step, we have enabled our solution owners to develop a holistic evaluation framework at a very early stage in the Lifecycle. This framework identifies how each solution contributes to the overall performance program and drives the production of evaluation instruments.

Making It Available: E-Enablement on the Web

From our analysis, we defined our desired performance as adoption and application of HPT by WD professionals in their day-to-day work. We knew this behavior would only occur if the tools and processes were accessible at any time and from any place. Tasks, related templates, guides, resources, and examples needed to be available and easily accessible at the time the practitioner was performing the task. A web-based performance support portal was the answer to these needs (Figure 2).

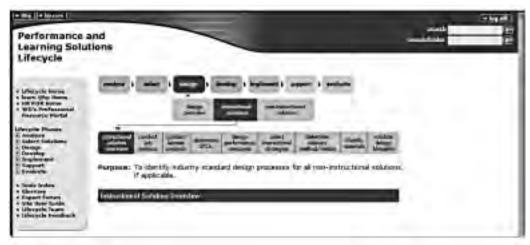


Figure 2. Performance and Learning Solutions Lifecycle.

Our challenge was to accommodate the needs of a diverse audience. We knew from our analysis that we had a great range of expertise, from novices to experts and every degree between.

Through the enrollment of early adopters in extensive usability and user acceptance testing, we received valuable feedback on our web design and future direction. We captured many requests for how-to guides and completed examples and other supplemental information. Other requests included quick

access to common tools or templates. The resulting web design was based on guiding principles devised from this user feedback (see Figure 3).

These features allow practitioners to walk through the process from beginning to end, to obtain detailed information on a task if needed, to quickly get to a step that they are performing, and to download templates easily. Navigating through a visual representation of the Lifecycle process supports retention of the major process steps, while specific inputs and outputs for each phase and sub-phase support smooth workflow and transition of work from one person to another.

Another challenge to our web design was visually representing a process that is not always linear. As mentioned, our evaluation process was designed as an integrated process flow. This depiction had to be represented on the web to enable users to see both the evaluation workflow and its integration. Consequently, the evaluation phase is presented as an interactive model indicating phases in which evaluation-related activities occur. For instance, the model indicates that the process of identifying evaluation metrics occurs in the HPT Analysis Phase; clicking on this part of the model takes the user directly to the step in the Analysis Phase that describes the related evaluation task and offers supporting documentation and tools for accomplishing that task.

Building Competency in Our Workforce

Competency Modeling

When Gilbert's *Human Competence* was published in 1978, he shocked the business world by suggesting that competency doesn't necessarily dwell within us. Gilbert proposed that guidance and feedback were the single largest contributor to competence in the world of work. More than half the problems of human competence can be traced back to inadequate data or information about what is expected. Information is the keystone of the environmental section in the behavioral engineering model. To give WD professionals

GUIDING PRINCIPLES	RESULTING WEB DESIGN
Accommodate varying levels of expertise.	Interactive user tutorial showing intended use of the portal and features Concise tasks on the main page, with supplemental links to guidelines, resources, and completed examples Alphabetical and categorical indices for quick downloads or reference Glossary of terms
Identify where I am in the process.	Left and top navigation displays entire Lifecycle process and indicates which process the user is accessing User can see the previous and subsequent phases from every page of the Lifecycle
Keep it simple.	 Consolidated multiple templates for different tasks into single "master" working templates, with "chapters" for each subtask Each sub-phase page has purpose statement, inputs, key tasks, links to supporting documentation for each task, and outputs

Figure 3. Input's Effect on Design.

the information they needed to know about how they should perform and to enable specific feedback, we turned our attention to competency modeling.

Given the definition that a competency is how an employee creates value through what is actually accomplished, it follows that competencies aligned with key business objectives and corporate values help foster an organization's success. A competency model is a document that identifies these competencies and defines key tasks, competency areas, key knowledge, and skills and attributes for successful performance.

Within WD there are the following roles:

- Business WD consultant: WD focal point for specific business units
- Organizational effectiveness consultant: Provides performance solutions for organizational needs
- Learning solution and portfolio owner: Responsible for curriculum development, course development and course effectiveness
- **Delivery consultant:** Responsible for effective implementation of performance solution, including instruction
- **Delivery support specialist:** Provides logistics support for performance solution implementation and evaluation
- **WD manager:** Managers of WD operations, functions or business aligned teams

Using well-established methodologies, competency models were created for each of these key roles using existing position descriptions taken from both pre-merger companies. They were validated across WD in all regions and in all businesses, then aligned directly to the Lifecycle

These competency models gave our WD professionals specific descriptions of required skills and behaviors, providing the guidance and feedback they need to produce competitive value. The models are laid out in three levels:

• Base: Foundational skills occupy the base level. These are the professional and leadership skills, required at a companywide level, for any job role.

- Middle: The middle layer of the model encompasses specific core skills for the work group. In our case, the baseline skills and behaviors are defined for all WD professionals.
- Top: Role excellence is the top level.
 It lists skills that define each role and represents the distinct set of capabilities that differentiate each role.

Together, these levels enable successful job performance.

The importance of the competency models in performance improvement for performance improvers cannot be understated. WD professionals now have a discrete set of information depicting the full range of capabilities needed by each role, giving them guidance on what is expected from them. Importantly, the model is coordinated with the standardized tools and processes in the Lifecycle.

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Figure 4. WD Role Development Roadmap.

WD Development

Through our program-level HPT gap analysis we identified the potential performance barriers to the introduction of HPT within WD. Further work on our competency models and conversations with respected field colleagues confirmed that we had performance barriers in the knowledge category of Gilbert's Behavioral Engineering Model. In short, we had to develop WD competencies in HPT and in our newly consolidated ID methodology as part of the WD development roadmap (Figure 4).

To provide a solution to our immediate knowledge needs, we set about developing foundational courses in both HPT and ID. The objective of these two courses was not only to introduce our workforce to HPT methodologies, but also to set the context for the new ID process within the HPT framework; the courses would further enable us to assure our professionals that their ID skills are still critical and are enhanced by use within the HPT model.

The foundation courses are extremely popular and have been attended by nearly 400 WD professionals. We have also conducted a master class workshop, mentored by industry experts. In this classroom-based course, solution owners work through real-life scenarios with their peers and have access to world-class coaching.

Socializing Our Capabilities: Enabling Communities of Practice

In many ways, Hewlett-Packard operates as a huge virtual team. Our people are distributed in all corners of the world

and work on teams spanning 15 time zones. Organizational boundaries, while important, are regularly criss-crossed in our daily work. Within that setting, our team knew that the transformation we were undertaking needed a human component. It was not just about tools and technology, but also about connecting people to information and—more importantly—to each other.

As part of our suite of solutions, we also recognized that this human element could, in fact, be the glue keeping the rest of the puzzle pieces intact and could enable us to keep the transformation alive. To that end, we incorporated several related approaches into our implementation:

- Finding the early adopters: Transformational change requires that early adopters be identified, included, and recognized. The Lifecycle team began to systematically identify early adopters, some of whom came directly to us, having heard through the grapevine that we were engaged in this project. In other cases, we found key players who had skills vital to our effort through referral from colleagues. In all cases, we engaged these individuals as expert reviewers and early users of our tools. Their feedback was invaluable and enabled us to make the entire solution set more robust and practical.
- E-brown bags: The brown-bag meeting takes its name from the practice of conducting informal seminars at lunchtime, while attendees eat from their brown-bag lunch pack. This was a construct that we used to connect people with common interests. In our extended world, face-to-face meetings are not an option. However, by using conference phones and virtual meeting place technology, we knew the virtual brown bag was eminently

possible. We began to find internal and external experts willing to talk to WD audiences about subjects that were germane to our tasks. Discussions on e-learning, engaging audiences through effective use of technology and discussions on evaluation, were all conducted in 90minute sessions with audiences across the globe. These e-brown bag forums have become part of our process and regularly attract from 75 to 150 WD professionals.

Consultation: Early adopters can kick-start a transformation, but they alone can't sustain it. Individuals anxious to use new approaches, but not quite ready to take the plunge, are an important community to engage. Recognizing that learning these new techniques would require mentoring and coaching, the Lifecycle team opened itself up informally to professionals who wanted coaching, guidance, and encouragement.

Integrating Business Processes Into the Lifecycle

As we move forward with the Lifecycle, we continue to look for areas of improvement to make it a true one-stop shop. Our philosophy is simple: The more our Lifecycle embraces operational and management processes, the more likely the new approach will be adopted. Furthermore, the more often that the same process is referenced and used as the framework, the more likely that practitioners will become skilled at using its methods, tools, and processes.

The Lifecycle team is constantly looking for processes that will function more effectively if integrated into the Lifecycle rather than remaining disconnected. We have identified several key areas that are in development at this time and that will continue to make our support tools, processes, and capabilities a one-stop shop for our WD professionals. Two of these areas are as follows:

- Project and program management: Hewlett-Packard is increasingly using standard project and program management processes to manage and oversee medium and large-scale projects. We are currently identifying key linkage points between these processes and the Lifecycle to ensure that large solution development projects follow project and program management practices.
- **Operational processes:** Having rolled out the transformational, front-end processes, we are focusing more of our attention on the daily operational processes that can make or break the implementation of a solution. We are creating links to our Learning Management System, our procurement processes, information technology processes, and our communications planning and deployment processes.

Conclusion

So far, our Performance and Learning Solutions Lifecycle has attracted great interest and acclaim, from both internal and external professionals. As with any transformation, the journey continues and opportunities abound for improvement and refinement. Since HPT methodologies are iterative, so too are our efforts to bring performance improvement to performance improvers.

With our first iteration of the HPT process, we have taken our first look in the mirror and we had to be brutally honest in our self-appraisal. However, using HPT, if you don't like what you see in the metaphorical mirror, there are tools and techniques to change things for the better. We have been able to demonstrate to ourselves that HPT can be effectively applied to provide a portfolio of solutions for complex workforce performance issues, even when used as a metaprocess to instill itself into a WD workforce.

We have already shifted the actual performance of the workforce closer to the desired performance, but there is still a great deal of work to do. Making sure that the Lifecycle is adopted by practitioners, supported by WD management, and embedded in to the day-to-day workflow of our organization is a far greater task than our achievement so far. As we move forward with subsequent iterations of HPT methodology, the challenges we face become clear and we have opened up a number of exciting opportunities that further demonstrate its effectiveness.

As we look in the mirror, we get better looking all the time.



References

Gilbert, T.F. (1996). Human competence: Engineering worthy performance, tribute edition. Silver Spring, MD: ISPI.

Kirkpatrick, D.L (1998). Evaluating training programs: The four levels (2nd ed). San Francisco: Berrett-Koehler Publishers.

Mager, R.F (1997). The new Mager six-pack. Atlanta, GA: CEP Press.

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