

Human Performance Technology

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Every organization is a human performance system:

- **It was founded by people.**
- **It's run by people, and**
- **It's established to provide value to the people who are its customers/stakeholders.**

This means that a human performance system may be seen as the most fundamental view one can have of any organization. There are other possible views, such as a business view, an operational/process view, or an economic view of the organization. But these viewpoints are all derived from the activities of people.

A physician's understanding of the body as, first of all, a biological system is the foundation for dealing with human health. Similarly, business leaders and managers need an understanding of their organizations as human performance systems to establish the foundation for dealing with their organization's success.

The universality of HPT derives from the fact that every organization in the world has exactly the same purpose – **to provide value for its stakeholders. Be it a business, a club, or a government organization – all organizations have stakeholders that must be satisfied.**

Human Performance Technology

Let us begin our exploration of HPT by defining human performance:

Human performance is the valued result of the work of the people working within a system. And therefore Human Performance Technology consists of those principles and applications that are concerned with improving the impact of any and all factors that affect those results.

Consider this definition of Human Performance and what it implies.

1. It emphasizes that we must look at performance within the context of a system, recognizing the interdependency of the various factors that affect performance.
2. It recognizes the necessity of looking at people while determining those factors that impact the results that those people produce; in other words, people are at the heart of any analysis we do.
3. It defines human performance in terms of results not activity.
4. It focuses on the **value** of the result, which requires an independent evaluation of the output. This prevents our definition of human performance from becoming circular. If we only look at output then whatever is produced defines the performance. But by requiring an independent "receiver" to assess the value of the output, we can use that result data to improve the effective functioning of the human performance system and its adaptation to its environment. This means that the applications of HPT must start with results and analyze the system components that affect that result. In fact, these provide the first two principles of HPT:
 - **Focus on results.**
 - **Take a systemic view**

A Human Performance System

We said performance focuses on people working within a system so let us see how we analyze the performance system.

1. The performer interacts with a physical and social environment that may consist of the necessary tools and equipment, relationships with other people, and so on. We refer to these as the conditions of their environment. They are the givens, the stage settings, the props, and other actors that are available to give support.
2. To initiate any meaningful activity we also need some kind of input or direction. Performers need to know the assignment, the goals, and what is expected of them.
3. On an individual level, we must be sure the performer is able to act (assessing the extent of his or her skills, knowledge, and capacities).
4. The resulting output can be measured, and that information can be used as feedback to the performer about how to change their actions, if need be.
5. Finally, the assessment effort results in some kind of consequence., and the consequence may be the need to act to motivate or de-motivate people. We refer to this as the motivational or value feedback.

These five variables together create a performance system:

- The environmental conditions
- The input /direction
- The performers' ability to act
- The corrective feedback
- The motivational consequences

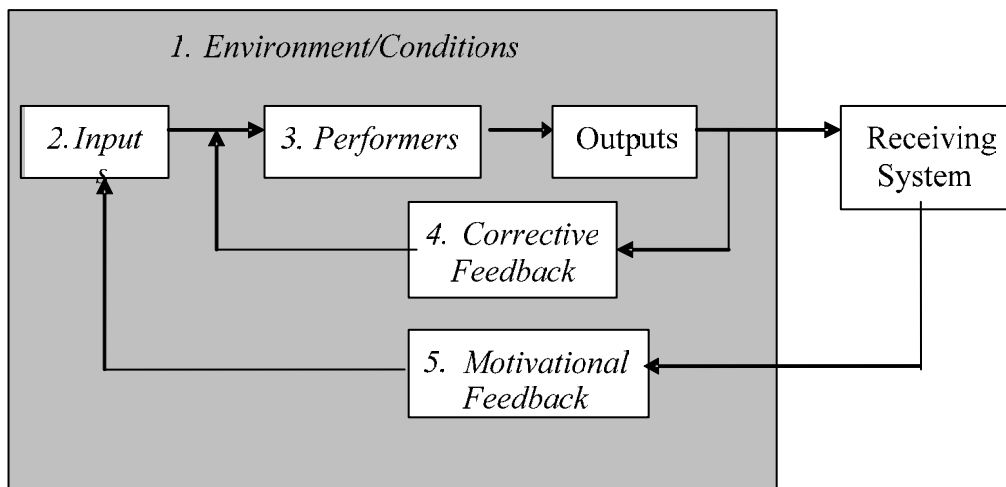


Figure 1. A Human Performance System.

An HPT Organizational SCAN

To analyze a human performance system we examine the effects of these five sets of variables to determine what impacts performance – i.e., ***the results produced by people working within a system***

The power of HPT is in part derived from the fact that the same performance system logic can be scaled up to enable us to look at the operations and organizational administrations in a similar way.

	CONDITIONS	INPUT	PROCESS	OUTCOMES
Organizational	STRUCTURE <ul style="list-style-type: none"> • Functional divisions • Degree of centralization • Reporting relationships • Decision authority 	STRATEGY <ul style="list-style-type: none"> • Mission, vision, strategic direction • External demands • Competitive pressure 	ADMINISTRATION <ul style="list-style-type: none"> • Administrative systems: flexibility, links, centralization • Information systems: timely, accurate, relevant 	BUSINESS RESULTS <ul style="list-style-type: none"> • Business plan data • Marketplace indicators • Financial indicators
Operations	ENVIRONMENT, RESOURCES <ul style="list-style-type: none"> • Equipment, tools, information • Support services • Accessibility of resources • Physical environment 	DEMANDS, SCHEDULE <ul style="list-style-type: none"> • Requirements (time, quality, cost) • Workload Predictability • Resources 	METHODS, CAPACITY <ul style="list-style-type: none"> • Process design • Roles and responsibilities • Task definition 	PRODUCTS, SERVICES <ul style="list-style-type: none"> • Product data • Standards • Timeliness • Product mix • Level of service /completion
People	PRACTICES <ul style="list-style-type: none"> • Leadership practices • Hierarchical relationships • Peer relationships • Business values 	DIRECTION <ul style="list-style-type: none"> • Priorities • Purposes • Objectives • Assignments 	PERFORMERS <ul style="list-style-type: none"> • Skill/knowledge • Initiative • Assignment • Selection 	CONSEQUENCES <ul style="list-style-type: none"> • Performer data • Feedback sources/utility • Rewards, recognition • Expectations

Table 1. The Organizational SCAN

Putting it all together results in a systems performance framework – a framework that can provide a comprehensive view of the organization as a human performance system. By examining the 15 sets of variables in the whole system framework and their interdependencies, the organization can be better understood and much of the mystery about the organization’s workings be resolved.

In HPT we use performance system analysis either to design innovative applications that provide new and better ways to achieve results, or to “troubleshoot” the organization and better align it for success.

The third principle of HPT is:

- **Make sure you provide value**

Over the more than 50 years of the field’s development, there have been many breakthrough innovations resulting from the application of HPT.

One of the first applications was in education and training. The field of Instructional System Design is derived from HPT. Individualized instruction and mastery learning in schools, distance learning, and, most recently, E-learning developments are based on HPT approaches.

Other HPT projects have ranged from doing task analysis for USAID community development personnel in Ghana to performance-based leadership development for the U.S. Naval Academy. HPT people developed many of the process improvement and re-engineering techniques in use today. Other examples include

- Successful organizational culture change was largely pioneered by HPT people working in Europe and the U.S.
- Partnering processes that created internal and external alliances in order to break down the barriers between teams are another successful HPT intervention.
- Internal brand alignment to assure that people within the company deliver the experience that the company promised is still another example.

The list is endless because what people and organizations need is endless.

And, like Electronic Technology, Human Performance Technology will be creating tomorrow's new applications that meet the ever-changing needs of mankind.

The forth HPT principle is:

- **Work in partnership with others to produce the best result**

The organization is a system, and no one can be an expert in all aspects of that system. There are strategy experts, organizational development experts, marketing experts, salary administration experts, IT experts ... The list is endless. What HPT provides is a systems framework to "hang" things on to provide better and more certain ways to get the best from a variety of expertise.

For example, billions have been spent on IT processes, yet economists report that these expenditures have not resulted in anything like the improvement in productivity or profits that were claimed for them. Some economists looking at the history of other technological changes note that productivity gains only occur after the practices of the organization change to be aligned with process changes. These changes include business practices, work practices, and company cultural practices.

HPT practitioners are aware of this need because of their disposition to take a full systems view. They often work with IT people to make sure that company practices are brought in line with the new processes or that the processes are modified to better align with existing practices

The principle of "partnering" is very important to HPT practitioners. It is hard for most experts to admit they do not understand everything that is of importance to the organization. Perhaps it is because HPT practitioners try to enter every situation without a predetermined solution that they are more willing to work closely with other professionals and build on what various experts know to arrive at a solution that adds real value to the client organization.

Reviewing our principles, one can see why they enhance the effectiveness of HPT applications:

- **Start with results**
- **Take a systemic view**
- **Always create value**
- **Partner with others**

Professional Communities of HPT

In view of the wide scope of applications, the International Society for Performance Improvement (ISPI) has recognized seven professional communities within the field of HPT. What distinguishes solutions in these areas from more conventional ones is the focus on results being the “driver,” with analysis being based on taking a systems view. The seven are:

Management of performance systems

To influence organizational results by looking at the whole system to determine where the major sources of variance are, and then addressing them with appropriate organizational change processes and techniques.

Examples: Change management, management and leadership initiatives, administrative systems analysis, program and project management, strategic planning, etc.

Instructional systems development

Determining when and what learning needs to occur and the best way to achieve it through manipulation of display, response demands, and instructional management.

Process Improvement

Increasing the efficiency and/or effectiveness of the sequence of activities in the value chain that produces outcomes and results.

Examples: Statistical process improvement, business process re-engineering, Six Sigma, operations research, etc.

Organizational Design/Alignment

To examine decision-making authority, values, business practices, and the conduct of people in the organization to ensure they are aligned to produce the desired results.

Examples: Culture change, group collaboration, team building, organization design, company values and practices, executive coaching, organizational integration, etc.

Motivation and Feedback

Examining the data that arises from performance and providing the most effective way to deliver that information in order to modify the form of behavior or to increase or decrease the likelihood of subsequent action.

Examples: Corrective feedback, incentives and motivation, coaching, performance management, mentoring, performance appraisal, etc.

Analysis, Evaluation, Measurement

The process of assessment, decision-making, and action relevant to the maintenance and adaptation of the system.

Examples: Human factors analysis, balanced scorecard and dashboard, needs assessment, statistical process controls, performance measurement, evaluation, ROI, benchmarking, etc.

Science of HPT: Foundations

The intellectual pursuit of basic principles and conditions of applications that impact human performance.

Examples: Behavior analysis, educational research, learning theory, systems theory, motivation, cognitive science, etc.

A Final Note

Over the last forty years or so, the field of HPT has produced many broad-based solutions. The possible applications are unlimited. The story of HPT is a creative one. It results in higher profits, greater customer retention, aligned organizations that work more effectively across functions and across levels, cost leveraging not just cost savings, and companies that can change as fast as their market and faster than the competition.

Human Performance Technology is helping individuals and organizations to create greater value for themselves and their stakeholders

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