EPPIC Inc.

Achieve Peak Performance

to protect and improve the enterprise

Performance Modeling & Human Asset Enabler Analysis

— An EPPIC Inc. Article—

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From EPPIC's Article Series

The Key to All Things "*performance-based*"

Performance Modeling & Human Asset Enabler Analysis
By Guy W. Wallace, CPT

Introduction

All too often, human performance improvement initiatives are begun without the benefits of a thorough analysis of the terminal objectives for the improvement, such as:

- Improved job performance as measured by the existing business metrics
- Improved process performance as measured by the existing business metrics
- Improved enterprise performance as measured by the existing business metrics

And all too often, improvement initiatives are begun without a clear understanding of the "total investment" required, and the "total returns" at stake.

Too often "this improvement" leads to "that improvement" and "those improvements" and the unanticipated improvements up and down the "value chain" ruin the previously forecasted ROI and Value Add potential, due to the forecasts' partiality. The forecast simply didn't anticipate the other entangled processes that too would need repair/improvement as the value chain adjusts to change. It didn't see those "coming."

The ROI and Value Add for any improvement endeavor should be reasonably forecasted prior to starting down the road to major improvement, where the ROI and Value Add potential can be significant..

The goal if any improvement should always be to **protect and improve the enterprise**.

Anything less is a disservice to the performers, the customers and the shareholders of an enterprise. Often, the mindset of the improvement customer is: *Avoid "analysis paralysis." Just do it.*

Sometimes the "fix" seems so obvious. Unfortunately, that bias toward "haste" typically guarantees "waste" down the road.

For the cost of "two or three days investment," would a lean analysis and its deliverables be "worthy returns" based on the results for that investment? How can we quickly get at the heart of the performance issue or opportunity?

In this article, we will focus on **two of the key analysis methods** of EPPIC's EPPI and PACT methodology-sets:

- **Performance Modeling**— where both "ideal performance" and "actual performance" (via a gap analysis), is modeled and captured to allow further analyses

- **Human Asset Requirements Enabler Analysis**— where the human assets, in terms of the awareness-knowledge-skills, the physical-psychological-intellectual attributes, and the personal values are identified and captured to allow further analyses to validate and assess the current performance of various enterprise systems and processes to ensure the right human assets are in place at the right process at the right time to achieve peak performance

It is our claim that these are the heart of analysis for improvement. There are other analyses, such as financial, competitive, marketplace, SWOT, legal, ethical, benchmarking, process mapping, etc., that are also necessary at times. At other times, not.

These two are almost always appropriate. And can lead an customer-sensitive/instructional response back on to the road toward ROI and Value Add...a transition from instruction to performance.

My experience in the downstream use of Performance Models and Enabler Matrices is in several improvement intervention types, including: training, selection, recruiting, certification, and compensation. All efforts were to better align the existing systems and processes based on the analysis of both human performance and the enablers. I apply those in either EPPI projects or PACT projects.

Overviews of EPPIC & PACT and the Use of the Performance Model and Human Asset Requirements Data

EPPIC's methodology-sets for **EPPI**, and an EPPI sub-set, **PACT,** are intended to improve the human performance by addressing both the human and non-human variables inherent in any process.

> **EPPI**sm is EPPIC's methodology-set for conducting improvement initiatives. EPPI's Stage I accelerated up-front assessment and analysis lead to preliminary intervention specifications that allow enterprise leadership to calculate and forecast realistic ROI and Value Add for fully carrying out the improvement initiative in EPPI's Stage II.

> **PACT**sm is EPPIC's methodology-set for performance-based Instructional interventions to address gaps in the performance-based "awareness-knowledge-skills" of the target population, not adequately addressed by the enterprise selection & recruiting systems.

The **Performance Modeling (PM)** methodology and the **Human Asset Requirements (HAR) Enabler Analysis** methodology are keystones for both EPPI, and all three of the PACT instructional design processes.

They are both conducted in Phase 2: Analysis, along with other analysis type methods, specific to the intended outputs of any particular project.

The Performance Model facilitates the systematic deriving of all of the enabling human assets required, as captured on Enabler Matrices.

EPPI—Enterprise Process Performance Improvement

The EPPI methodologies bring predictability and control to the very tricky and complicated task of improving complicated, intertwined processes, WHILE ensuring that there is adequate return on the investment and added economic value. Improvements that don't promise to and then later add real value or provide sufficient return-on-the-investments are merely interesting, and not appropriate of actual consideration and effort.

There are two stages to EPPI:

1. **Targeting EPPI** – is where a little effort is expended to conduct quick analysis and design efforts in order to build a preliminary "business case" for going after significant ROI. The potential entanglements with other processes are brought to light. Their costs are factored in to the bigger picture of "Total Investments" for "Total Returns." Improvements that don't show enough ROI and EVA "promise" never see the light of day or a nickel more of shareholder equity.

2. **EPPI Intervention Initiatives** – is where the significant ROI promised in the upfront Targeting EPPI efforts, is achieved via structured interventions that fully anticipate all of the entanglements (efforts and costs) involved in addressing what are usually complex situations; especially for those with significant strategic and financial impact.

EPPI uses both the Performance Model and the Enabler Matrices as the drivers for all improvement efforts.

The PACT Processes for T&D

The PACT Processes for T&D are a sub-set of the EPPI methodologies. They that take a systems, top-down, modular approach to T&D analysis, design and development.

The PACT Processes include the macrolevel analysis and design of a modular curriculum of learning interventions, followed by the midlevel analysis and design of the learning modules and events (learning subassemblies and products), as well as the microlevel analysis, design, and development of tests, simulation exercises, and instructional content.

The three PACT Processes for T&D are shown in the graphic below.

The Performance Model and the Knowledge/Skill Matrices (of the broader set of Enabler Matrices of EPPI) are the "drivers" for all instructional efforts.

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Whether or not you use our EPPI or PACT Process methodologies in your approach to improvement of T&D, the Performance Model can establish effective work performance as the ultimate, terminal success criteria, while the K/S Enablers establish the required human assets of knowledge and skill.

Overview of Performance Modeling

The Performance Model itself is the heart of EPPIC and PACT's *lean* approaches to performance improvement and/or instructional design.

It is comparable with some version of a "Process Map." There is overlap; and the Performance Model adds detail to a Process Map limited by it's structural/visual design. They are completely compatible.
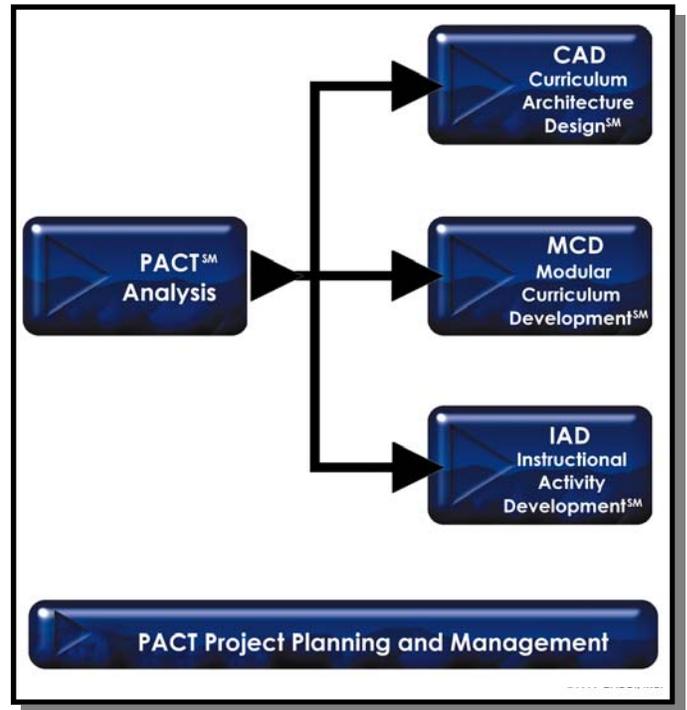
To design a successful performance intervention, an organization must have a basic understanding of

- The process' inputs, steps, outputs; and the measures and standards for all three
- The individuals who will be performing in that process
- What specific performance is required/desired- and what the current level of level of performance is
- Exactly what knowledge and skills are required to perform
- The strengths and weaknesses of any current T&D
- The environmental (non-human) enablers required to perform
- The strengths and weaknesses of any current environmental (non-human) enablers

The singular key to EPPIC's EPPI and PACT approaches is: *performance analysis*. As documented via a Performance Model.

Not only does the Performance Model provide an illustration of both ideal performance and actual, it can provide a basis for the design/redesign of human resources selection T&D, assessment, and compensation systems. More on those non-T&D applications will be discussed later.

The information in a Performance Model includes a segmentation of overall performance into "Areas of Performance" plus details regarding the outputs produced, tasks performed, measures and standards, typical performance deficiencies, and the causes of those deficiencies. Performance Models may be developed for an organization, a function, a job, a task, or a process.

The Performance Model has two components:

1. AoPs (Areas of Performance)– which are the "segments" of overall performance.
2. PM Charts– which capture the data details for each AoP segment.

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The first step of Performance Modeling is to establish the Areas of Performance (AoPs). Areas of Performance are the "chunks" of the job and "chunks" of the multiple processes that most performers perform within.

Most AoPs are chunk definition of the segments of one or more linear processes, and almost always include some "chunks" that are not part of a linear process.

AoPs segment a job or process (or both) for additional scrutiny. AoPs create a *systems* framework and frames of reference for all other data to be gathered and analyzed.

An example for a store manager at TMC follows.

Note: the TMC Stores example comes from EPPIC's PACT Process Workshop series. The TMC case is used for all of our small group simulation exercises.
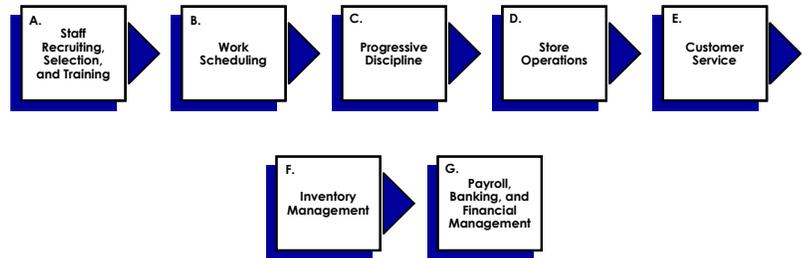
These AoP segments of overall performance are then used to divide and conquer the remaining analysis of performance enablers.

**TMC Stores
Store Manager

PERFORMANCE MODEL
Areas of Performance**

A. Staff Recruiting, Selection, and Training	B. Work Scheduling	C. Progressive Discipline	D. Store Operations	E. Customer Service

F. Inventory Management	G. Payroll, Banking, and Financial Management

The purpose of the Performance Model data is to facilitate further analysis and detailed data collection.

**The Most Convenient Stores
Store Management
Performance Model**

Area of Performance: A. Staff Recruiting, Selection, and Training

• Key Outputs – Measures	Key Tasks	Roles/Responsibilities 1	2	3	4	Typical Performance Gaps	Probable Gap Cause(s)	dE dK dI
• New staff hired – Timely – Qualified	• Identify need for additional staff and complete internal paperwork		✓	✓		• Too few candidates	• Poor recruiting	dK
							• Local economy	dE
	• Create and place local ads		✓			• Poor choice	• Neglect to check references	dK
	• Select candidates for interviewing		✓				• References do not provide key information	dE
	• Interview and select candidates for offer		✓					
	• Make hiring offer(s)		✓					
	• Complete paperwork to fill the position		✓					

Role: 1 = District Manager
2 = Store Manager
3 = Assistant Manager
4 = Clerk

dE = deficiency - Environment
dK = deficiency - Knowledge/skill
dI = deficiency - Individual attribute/value

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Key Outputs and Metrics or Measures
Describes what is produced from doing the job tasks and identifies key performance measures of each output

Key Tasks
Describes the key activities needed to produce the outputs

Deficiency
dE=Environment
dK=Knowledge/skill
dI=Individual attribute/value

Probable Gap Cause(s)
Identifies most likely causes for each typical performance issue/ deficiency

Typical Performance Gaps
Identifies any typical ways the output or task does not meet performance standards

Roles/Responsibilities
Clarifies who is typically responsible for performing the tasks

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One of those types of "further analysis" is the generation and capture of the human assets that enable mastery performance.

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Below, an example is shown of one page of a multiple set of pages for an enabler (knowledge/skills).

The Performance Model is central to additional data gathering and analysis and is used throughout the remaining steps of CADDI's, or any other good, ISD process model.

- Its use in follow-on analysis activities allows the systematic deriving of the enabling knowledge and

The Most Convenient Stores
Store Manager
Knowledge/Skill Matrix

Knowledge/Skill Category: 1. Company Policies/Procedures

K/S Item	Link to Area of Performance							Select/ Train S/T	Criticality H/M/L	Difficulty H/M/L	Volatility H/M/L	Depth A/K/S
	A	B	C	D	E	F	G					
EEO	X							T	H	M	L	K
• Affirmative action	X							T	H	M	L	K
• Vacation and day-off policy	X	X	X	X				T	H	M	L	K
• Discipline policy	X		X					T	H	H	L	K
• Suspension procedure			X					T	H	L	L	K
• Store hours policy	X	X		X	X	X		T	H	L	L	K
• Credit card sales procedure			X		X			T	H	L	L	K
• New hire orientation procedure	X	X						T	L	L	L	K

Codes:
Link to Area of Performance
A = Staff Recruiting, Selection, and Training
B = Work Scheduling
C = Progressive Discipline
D = Store Operations
E = Customer Service
F = Inventory Management
G = Payroll, Banking, and Financial Management

Criticality/Difficulty/Volatility
H = High
M = Medium
L = Low

Depth of Coverage
A = Awareness
K = Knowledge
S = Skill

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Annotations:

AoP Link
Identifies the segment of the job/function where the knowledge or skill enables performance

K/S Item
Identifies the discrete knowledge or skill item

Depth
The level to which any training & development needs to go

Volatility
Ranks how often and significantly the knowledge or skill will change

Difficulty
Ranks how difficult the item is to learn

Criticality
Ranks the relationship between having the knowledge or skill and performance mastery

Select/Train
Denotes whether the item is a selection criteria/ condition or needs to be covered in training & development

skills required by the performers, thus building a bill of materials (BOM) for the entire T&D product line.

- The Performance Model captures the key data to construct performance-based learning objectives (which naturally follow the Analysis Phase).

- Its use in the Design Phase ensures that the non-instructional and instructional interventions are designed first to address the performance requirements of the business process. The intervention design should itself reflect a performance-based orientation.

- Its use in the Development Phase will guide the intervention designers and the other Master Performers and Subject Matter Experts in developing criteria, tests, and content/deliverables that are all focused on the terminal performance, as articulated by the Performance Model.

- The testing and evaluations of the Pilot-Test Phase should assess and reflect the environment's enablers of the real-world, and assess the performers' ability/competency to perform given that environment.

- The post-intervention implementation evaluation and measurement of the (level 4) *returns* are

necessary for measuring the "actuals' versus the "plan" for ROI and Value Add.

I have found that a team approach versus individual interviews/observations to conducting the analysis not only saves time but also creates an ownership by the participants in the results of the effort. In reality, no one individual has all the information, and individual perceptions differ depending on experiences. By involving a mix of participants in the analysis processes, group synergies develop that result in much greater detail and accuracy.

It is important to create a diverse team of participants. These include master performers who are experienced in the tasks involved, SMEs (those who are knowledgeable in theory of the task but who do not *do it* in their current job assignment), supervisors and managers, and perhaps, novice performers.

While master performers are important because they have years of experience and understand the intricacies of performing the tasks on a daily basis, novice performers might be important to the team precisely because the tasks were recently new to them. Their perspective will differ from older/wiser master performers as to what is needed when. Their involvement may be appropriate depending on your situation.

Human and Environmental Asset Requirements

The human assets required for high performance of enterprise processes can be systematically derived and viewed via EPPIC's Targeting EPPI models, methods, tools, and templates. This set of concepts and models is used in Targeting EPPI's Step 3.

The Human Asset Requirements

The following human assets, or key human variables, include both "individual" and "group/team/organization" items within each of the following categories:

- Awareness, knowledge, skills
- Physical attributes
- Psychological attributes
- Intellectual attributes
- Values

The importance of getting a handle on what's really needed from the human variable, and then what's currently missing in an effort to improve process performance, is driving enterprise management and many of their suppliers to create and test concepts, models, and tools such as

- Competency Management Systems
- Enterprise Resource Planning Systems (ERP)
- Knowledge Management Systems (KMS)
- Performance Management Systems
- Learning systems ("e" and otherwise)
- Etc.

These potential solutions need to be viewed within a larger contextual framework

The Environmental Asset Requirements

Processes must have a balance between human assets and environmental assets. These two complementary sets of assets need to be in place in order to ensure value-adding processes. Human assets work with/manipulate the environmental assets in order to *process* an output.

One can't effectively improve human assets without an understanding of the environmental factors within the processes in which humans perform.

The following are the categories for environmental assets:

- Information/data
- Tools/equipment
- Materials/supplies
- Facilities/grounds
- Budget/headcount
- Consequences (+/-)

Some processes don't have to be in control; this implies that all need to be in control. Control won't make up for a bad business plan or reconcile with other goals within the enterprise. But it is still a critical component to pulling off the business plan. The stakes are high or high-impact processes. High-stakes poker is played at a high-stakes table for a reason. Failure is usually not a viable option, for it can result in the death of the enterprise.

Again, our focus here is with the *human asset* side of process improvement and *not* with the *environmental asset* side.

The Human Assets of Targeting EPPI

Humans bring several types of attributes/capabilities to the enterprise processes that they work in and to the environmental assets with which they work. Again, these are

- Awareness, knowledge, skills
- Physical attributes
- Psychological attributes
- Intellectual attributes
- Values

  - *Awareness, knowledge, and skills* come in many types and varieties. EPPIC uses 17 knowledge/skill categories to systematically tease these out, once we know what the process performance requirements are. For each knowledge/skill "item," one performer might need to be only aware of what other performers need to know much more about, while yet another group of performers may need to have an actual skill level.

- *Physical attributes* include "items" such as the five senses: sight, hearing, touch, taste, and smell; as well as height, weight, strength, endurance, etc.

- *Psychological attributes* include "items" such as positive attitude, aggressiveness, risk taking, cautiousness, detail orientation, big picture orientation, etc.

- *Intellectual attributes* can include "items" such as conceptual thinking, concrete thinking, strategic thinking, process thinking, etc.

- *Values* can include such "items" as customer satisfaction orientation, teamwork, diversity, fairness, honesty, work ethic, family, etc.

These human factors/enablers need to be present to some degree to meet the specific process needs. Meeting these needs helps manipulate the environmental factors/enablers, which in turn helps to produce the desired outputs. These outputs are inputs to some downstream process(es).

Human Capital Systems

The Human Asset Management (HAM) Systems then provision humans into processes in concert with the processes' needs. The HAM Systems include the following:

HAMS – Human Asset Management Systems

- Organization & Job Design Systems
- Staffing & Succession Systems
- Recruiting & Selection Systems
- Training & Development Systems
- Performance Appraisal & Management Systems
- Compensation & Benefits Systems
- Rewards & Recognition Systems

HAM Systems and processes work in conjunction with each other, *and* in balance with the environmental assets in place, to insure the capability of the humans in place in the process(es).

They do this across the entire enterprise to ensure that capable people are in place. The HAMS figure out what is needed, determine when they'll be needed, identify from where they will come, go get them, develop them, assess them, reward them, and retain or remove them.

The HAMS ensure that the right humans (capable humans) are in place to get the process performance job done given the environmental assets available.

We will overview each in the following pages.

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Performance-based *Organization & Job Design*

The **Organization & Job (Re-)Design Systems** provide a set of job designs and an organization design conducive to the needs of the process, it's volume, and configured for the likely abilities and capabilities of the human performers who will be selected into those jobs in the locations where the performers will perform.

The Organization & Job Design System takes the totality of enterprise process performance requirements for an organization, and determines all of the ideal human assets required, and then designs the jobs most conducive to those realities.

Once the jobs are designed and responsibilities defined, the organization is by definition designed. Just as "form should follow function" we believe that "organization design should follow process performance requirements."

The goal is to get all of the human performance requirements (to perform tasks to produce outputs) sorted. This is done by sorting the process performance *tasks* into *role groupings* and then groups those into *job groupings*. Depending on the volume of performance and therefore the volume of tasks, some tasks/roles may be combined with others into jobs.

The job designs then roll up into the organization design. It is a "bottoms-up" approach driven by the visible top down "end goals" of the process performance.

Performance-based *Staffing & Succession Systems*

The **Staffing & Succession Systems** provide the strategies, plans and mechanisms for staffing plan development and succession the strategies, plans and mechanisms necessary to populate the organization's jobs with people in an efficient manner, providing career and growth opportunities where possible/feasible.

Staffing & Succession Planning Systems takes the job designs, their process performance requirements, and the enabler requirements, and determines who to recruit, how many, from where, and how.

Forecasting the needs and reporting that data and feeding it to the other HAM Systems allows for rational succession planning systems/processes that ensures the organization is optimally staffed and that tomorrows leaders are being prepared today.

Performance-based *Recruiting & Selection Systems*

The **Recruiting & Selection Systems** provide the strategies, plans and mechanisms for first recruiting and then selecting the best candidates in the right quantities, consistent with the Staffing & Succession plans, and populating the organization's jobs.

This system takes the human enablers that are deemed "required" in the new hire (or the new-to-the-job transferee) and creates recruiting guides/instruments to identify and select candidates. Some enablers will be showstoppers because T&D cannot bridge the attributes gap. Others will be less important. Some will be ignored. It is situationally dependant.

This system must bring humans into the enterprise that have as much of the human attributes needed as possible.

Performance-based *Training & Development Systems*

The **Training & Development Systems** provide the strategies, plans and mechanisms to train and develop the new hires and incumbents consistent with their performance requirements in the organization's jobs, as they have been designed.

This system takes the individual and *back-fills* them with the missing key knowledge and skills not acquired during the recruiting and selection processes.

Sometimes the recruiting/selection system may not be able to hire to the ideal. Missing awareness, knowledge and skill might be reasonably addressed by this system. But some items will be too costly to let go with "Recruiting & Selection" and then expect "Training & Development" to pick it up and fix it.

Examples include deep technical expertise, such as an electrical engineer or a programmer. It would probably be best to hire an engineer or programmer with a solid base of expertise and then teach them new things on top of their current levels of knowledge/skill.

But there are some things that "Training & Development" should not be expected to resolve at *reasonable cost*. Physical attributes, psychological attributes, intellectual attributes, and values are somewhat problematic. They might be able to be adjusted/developed. But most likely at too great a cost and too great a cycle time.

Performance-based *Performance Appraisal & Management Systems*

The **Performance Appraisal & Management Systems** provide the strategies, plans and mechanisms for appraising the job task performance and managing all issues (problems/opportunities) as appropriate, and consistent with laws/regulations/codes and enterprise policies/procedures.

This system takes the process requirements to "perform tasks to produce outputs" and provides measurement and feedback to the individual performer and to their management.

Where performance is falling short of the requirements, performance management, including "development planning (back to the T&D System) as well as last resort efforts such as "progressive discipline" and possible "termination" may be required to resolve the issue and meet the process needs.

Performance-based *Compensation & Benefits Systems*

The **Compensation & Benefits Systems** provide the strategies, plans and mechanisms to ensure that the total pay and benefits attract and retain competent staff, appropriate for the various labor markets for the various locations of enterprise operations, and are consistent with laws/regulations/codes, any labor contracts (if applicable), and enterprise policies/procedures.

This system takes the process requirements to "perform tasks to produce outputs" as well as the "performance

measurements results data" and adjusts compensation, in tune with local, or regional, market conditions and other compliance drivers.

Pay for performance, or knowledge, or skills, is fairly easy to structure, build and maintain when you understand clearly the process performance requirements and the human enablers. And it is ultimately more equitable.

Performance-based **Rewards & Recognition Systems**

The **Reward & Recognition Systems** provide the strategies, plans and mechanisms for providing non-monetary and small-monetary rewards and recognition to appeal to the ego needs of staff, and are consistent with laws/regulations/codes, any labor contracts (if applicable), and enterprise policies/procedures.

This system takes the process requirements to "perform tasks to produce outputs" as well as the "performance measurements results data" and provides non-monetary (or small monetary) rewards and recognition to motivate the performers.

Recognizing a job well done requires understanding what *a well done job* looks like.

Summary Human Assets Management Systems

The human assets in place within the enterprise that are expected to be capable of performing their task responsibilities within the processes of the enterprise. Failure of capability means failure of the process.

The HAMS are the processes, bundled into systems, manned by HR types and the operations and staff management customers that their systems and processes serve. The HAMS ensure that the enterprise processes are populated with capable and motivated people.

But the capable people that the HAMS provisions can only perform as good as their environments both directs and enables them. Managing the Environmental Assets is a balancing act with the human assets.

Overview: Environmental Assets Management Systems & Processes

The availability of the right Environmental Assets in the right place at the right time is also one of the jobs of managers in operations (or in staff groups) **and** the jobs of those in various departments within a modern, complex enterprise.

The EPPI model for environmental assets management is EAMS:

- EAMS - Environmental Assets Management Systems
- Data & Information Systems
- Materials & Supplies Systems
- Tools & Equipment Systems
- Facilities & Grounds Systems
- Financial Systems
- Culture & Consequence Systems

Performance-based *Data & Information Systems*

The **Data/Information Systems** provide all of the work orders and instructions, the policies/procedures, and all data/information needed to enable job holders to perform at a level of mastery.

Performance-based *Materials & Supplies Systems*

The **Materials & Supplies Systems** provide all of the materials and supplies needed to enable job holders to perform at a level of mastery.

Performance-based *Tools & Equipment Systems*

The **Tools & Equipment Systems** provide the tools, equipment, machinery, and vehicles needed to enable job holders to perform at a level of mastery.

Performance-based *Facilities & Grounds Systems*

The **Facilities & Grounds Systems** provide the buildings, grounds and facilities (communications/power/water/etc.) needed to enable jobholders to perform at a level of mastery.

Performance-based *Financial Systems*

The **Financial Systems** provide the capital and expense budgets, and the headcount budgets to management, needed to enable and support job holders in performing at a level of mastery.

Performance-based *Culture & Consequence Systems*

The **Culture & Consequence Systems** provide enterprise cultural norms, and all of the management reinforcements (and extinguishments) needed to encourage (or discourage) and enable job holders to perform at a level of mastery.

Summary Environmental Assets Management Systems

The environmental assets in place within the enterprise that are expected to enable human and mechanized systems/processes to perform their task responsibilities within the systems and processes of the enterprise. Failure of these assets means failure of the process to achieve its potential.

The EAMS are the processes, bundled into systems, manned by typically by non-HR types (the operations and staff management) that own and operate these systems and processes. The EAMS ensure that the enterprise processes are populated with the enablers required for use by capable and motivated people.

Again, the capable people that the HAMS provisions can only perform as good as the EAMS enable with the

appropriate environmental assets. Managing the Environmental Assets is a balancing act in conjunction with the human assets.

Summary — *Human Asset Requirements Enabler Analysis*

We claim this analytic method as one of the key components of a *lean* approach to performance improvement and/or instructional design.

The Performance Model is central to additional data gathering and analysis and is used throughout the remaining steps of EPPIC's, or any other good, ISD process model.

- Its use in follow-on analysis activities allows the systematic deriving of the enabling knowledge and skills required by the performers, thus building a bill of materials (BOM) for the entire T&D product line.

- The Performance Model captures the key data to construct performance-based learning objectives (which naturally follow the Analysis Phase).

- Its use in the Design Phase ensures that the T&D is designed first to address the performance requirements of the target audience and that content/topic/subjects are secondary and always in support of the former. The T&D design will itself reflect a performance-based orientation.

- Its use in the Development Phase will guide the instructional technologist and the SMEs in developing tests, exercises, and content that focuses on the terminal performance articulated by the Performance Model.

- The testing and evaluations of the Pilot-Test Phase should assess and reflect the performers' ability/ competency to perform.

The post-T&D (level 4) *returns* of the ROI equation and the *asset values increased* of the EVA algorithm can be initially forecasted and tracked based on the measures/metrics identified on the Performance Model

Not only does the Performance Model provide an illustration of both ideal performance and actual, it can provide a basis for human resources systems beyond T&D. The Performance Model data provides information from which physical, psychological, and intellectual requirements can be systematically derived besides the enabling knowledge/skills.

The Performance Model provides an organization with the information on which to base decisions such as

- What organization and/or job design is appropriate given the business processes and knowledge and skills/ attributes and values required
- What knowledge/skills a candidate should be hired with versus should be trained for
- What knowledge/skills should be assessed in the Performance Management System
- What knowledge/skills or performance competencies should affect pay in a pay for skills program

The model, in combination with the knowledge/skill analysis, can provide information for setting up pay for knowledge/skill compensation systems.

An additional benefit to EPPIC's analysis process's Performance Model is that it has many other uses beyond human resources. For example, with a few modifications, the process can be used to augment an organization's process modeling for a Total Quality Management-type continuous improvement effort.

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About EPPIC, Inc.

EPPIC, Inc. is a performance improvement consultancy using both instructional and non-instructional means for addressing critical target audiences within critical enterprise systems and processes.

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Our consulting services offer a performance-orientation to, and integration with, the following human asset management systems:

- ▶ Organization and Job Design Systems
- ▶ Staffing and Succession Planning Systems
- ▶ Recruiting and Selection Systems
- ▶ Training and Development Systems
- ▶ Performance Appraisal and Management Systems
- ▶ Compensation and Benefits Systems
- ▶ Rewards and Recognition Systems

We are dedicated to conducting and transferring our performance-based approaches for EPPI, and the PACT℠ Processes for T&D/ learning/ knowledge management to meet your needs and to generate significant ROI and Value Add.

About Guy W. Wallace, CPT

Guy has been in the performance improvement field since 1979 and a consultant to government and industry since 1982. His extensive client list includes many Fortune 500 firms. Many are repeat customers.

He has analyzed and developed training & development and non-instructional performance improvement interventions for almost every type of business function and process. He has won awards for his instructional design work.

Guy is the author of three books, more than 30 articles, and has presented more than 50 times at international conferences and chapters of the International Society for Performance Improvement (ISPI), the American Society for Training & Development (ASTD), and at the Conference for Nuclear Training & Education, IEEE and Lakewood Conferences.

Guy was the treasurer and an executive director on the 1999–2000 board of ISPI, and was elected President-Elect of ISPI in 2002, and will serve as the society's President for the year 2003-2004.

Guy is a Certified Performance Technologist (CPT).

Guy's biography is listed in Marquis Who's Who in America.

Guy W. Wallace's Consulting Clients since 1982

2000—today
Abbott Laboratories, Eli Lilly, Fireman's Fund Insurance, General Motors, GTE, Johnson Controls, Siemens Building Technologies, and Verizon.

1990—1999
Abbott, ALCOA Labs, Alyeska Pipeline Services Company, American Management Systems, Amoco, AT&T

Network Systems, Bandag, Bank of America, Baxter, Bellcore Tech, British Petroleum-America, Burroughs, CCH, Data General, Detroit Ball Bearing, Digital Equipment Company, Discover Card, Dow Chemical, EDS, Eli Lilly, Ford, General Dynamics, General Motors, H&R Block, HP, Illinois Bell, Imperial Bondware, MCC Powers, NCR, Novacor, Occidental Petroleum Labs, Spartan Stores, Sphinx Pharmaceuticals, Square D Company, and Valuemetrics.

1982—1989

ALCOA Labs, Ameritech, Amoco, Arthur Anderson, AT&T Communications, AT&T Microelectronics, AT&T Network Systems, Baxter, Burroughs, Channel Gas Industries/Tenneco, Dow Chemical, Exxon, Ford, General Dynamics, HP, Illinois Bell, MCC Powers, Motorola, Multigraphics, NASA, Northern Telecom, Northern Trust Bank, and Westinghouse Defense Electronics.

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