2015

It's Hard to Say – a Proposal for Evaluating Administrative Processes

John Richard Horne
American Public University System

It's Hard to Say – a Proposal for Evaluating Administrative Processes

John Richard Horne
NOVA Southeastern University

The purpose of this article is to propose a practical method with which to evaluation the performance of an administrative process that lacks specific quantitative parameters with which to examine. It provides a framework by which it adapts a widely used process improvement technique, the 6-S process, to a more advanced realm. By building on an existing process, learning time will be minimized and use of this tool in an administrative process will also act to reinforce the use of the 6-S tool in more physical settings, such as industrial or the like.

Background

Business processes are defined in many ways. In studying the performance of a process, one of the first things one notices is the nature of the *business flow* of the process. That is, business processes can be thought of as resting somewhere between two extremes of business flows; on the one end, the flow is essentially *recurring or repetitive in nature*, while at the other end of the extreme*;* you can have essentially *non-recurring* or non-repetitive business flows. As an example, at a fast food restaurant, the business flow is modeled around the efficient and effective repetitive functions of taking and delivering food orders, with little variation throughout the day. In cases such as this, performance evaluations are generally based on the collection of the outputs of these repetitive processes such as customers served per hour, customer's served per employee, sales per customer, etc. Of course, the actual performance metrics used are driven by the uniqueness of the business process and company policies. In a recurring flow type of business setting, metrics are easy to collect and analyze. In fact, most of these metrics can be gleaned by the company's own point-of-sale system that collects transaction-level data on each sale. From a business analyst's perspective, these output metrics can then be compared to the input metrics, such as labor and non-labor costs, to determine a business' overall performance.

The situation becomes more complex if one is trying to evaluate business processes that are *administrative in nature* and generally *non-repetitive or infrequent*. By the nature of these events, there are very few data points for any type of evaluation.

Some examples of these types of business processes include:

Administrative reporting - What if a process has a very low frequency of occurrence, for instance, quarterly or annual reports to stakeholders or government entities?

Corporate programs – What is the business process performance was not based on the timeliness of a service but on corporate responsiveness and creativity, such as in managing a corporate communications office.

Compliance programs – How can a manager of an employee's risk management or perhaps, an equal opportunity compliance office know how well their office is doing in the absence of major problems

that have surfaced?

The scarcity of the data points presents the business analyst with a serious challenge. The nature of administrative actions, such as those mentioned above, is that they do not easily fit into the traditional way that business analysts are accustomed evaluating repetitive business processes. For example, in the current body of knowledge used by continuous process improvement (CPI) practitioners, we are accustomed to thinking of basic metrics such as throughput and looking for bottlenecks and non-value added steps in a process. However, in many administrative actions, such basic concepts of performance are of little value. What is critical about these processes is not how long they take to perform the individual steps in a task but *how well the organization performs in delivering the administrative output and to what degree that administrative function helps the organization*. Owing to the non-repetitive nature of the process, the significance of 'how many minutes does it take to do this one task', is of little or even no consequence to management. However, the fact that the report is delivered on time and is accurate is of paramount importance to senior management, as well if the administrative function contributes to corporate health. Any other consideration is non-vital and perhaps even trivial.

For purposes of this article, the intended application of this proposed technique is for those administrative processes that share these types of traits listed below, these processes:

- Do not produce a physical product that can be measured or tested – is based on the *accumulation and flow of knowledge* either is a digital or paper form.
- Are of low and/or infrequent occurrence, not lending itself to using statistics due to low instances leading to non-normal data, thereby limiting the statistical tools available.
- Are not composed of any discernable types of categories within the product/service to compare between the categories, for instance, Chi Square testing. (American Society for Quality, 2001)
- Can have differing inputs and required outputs to the process , that is, the process isn't always defined in the same way
- Are not composed of recognizable and set time thresholds by which to evaluate timeliness
- Are generally where the cost of performance is not of importance to management or costs are so diffused into the overhead costs that to determine the unique costs is not practical

Adding to the limitations in analyzing non-recurring functions is the inadequacy of using many of the standard statistical toolset in the CPI practitioner's repertoire. The very limited number of data points seriously limits an analyst's ability to use many standard statistical tests, certainly the parametric ones. Of course, one could opt for using non-parametric techniques but again, the core issue is not the way the individual transaction is processed but *how well the organization handles* the transaction in the first place.

The Dilemma

So for the purposes of this article, the question of 'how well does the *process perform*?' becomes, 'how well does the *organization perform*?', in delivering the non-repetitive product within certain *qualitative elements deemed essential* by management. This is what the remainder of this article will consider and a worksheet will be proposed for evaluating administrative processes performed in an organization. What is needed is some tool that enables the CPI practitioner to evaluate a work center's performance that is not predicated on *counting repetitions of a regular number of transactions* that would enable the use of standard statistical tools. For the above example of evaluating an administrative process, what is needed is a tool to assess the *organizational health* of the work unit performing the work, a tool that *assesses the capability* of the work center to produce a high quality administrative action, and the value of that administrative action to the overall health of the organization. In this sense, the organizational health may indeed be the primary contributor to profitability (Keller & Price, 2011).

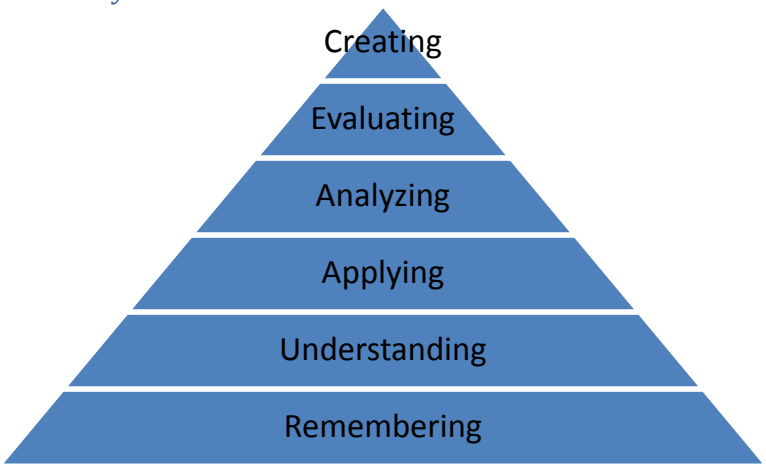
The Challenge

Before proceeding with a solution, there is one more consideration. It is always easier for a person to use the knowledge they have in new and more creative ways as opposed to learning some totally new and

unrelated process. In fact, that is a major component of constructivism in learning theory (Applefield, Huber, & Moallem, 2001).

Another way of looking at the advantage of adapting some known concept to a new application over learning a totally known concept can be seen graphically. A foundational construct for knowledge for many decades now has been Bloom's Taxonomy. One way of illustrating Bloom's Taxonomy follows (Brewer & Brewer, 2010):

Figure 1 Bloom's Taxonomy



The advantage of adapting some existing body of knowledge is readily apparent in that this chart in that when learning a new topic, one must first go through the Remembering stage and then the Understanding stage to get to the Applying stage. Whereas if a person were asked to apply some existing principle to a new application, they would not have to travel through the two preceding stages to get to the application stage, since they are already at the Understanding stage. In this case, they are fast-forwarding there base knowledge to a new realm but, using existing 'muscle memory' to get there. This concept too is in concert with the concept of accretion of knowledge, which is, adding more structures onto already existing knowledge (Rumelhard & Norman, 1976)

Therefore, the challenge here is *to create a method to better evaluate administrative functions by building on some tool already in the current process improvement body of knowledge*. With this business setting in mind, the following evaluation process is proposed.

The Proposal

This author proposes the use a variant of the widely used 5S technique to evaluate administrative processes. The standard 5S technique derives from a technique used to help improve the productivity in a workplace, to create a lean environment. The five S's come from the letter in the Japanese names of the terms used to describe the technique. Japan is attributed as the origin of this technique. (Womack & Jones, 2003)

A Proposed Framework

Current Practices – a Starting Point

The body of knowledge for process improvement and business analysis is quite extensive with some tools having been around since the beginning of the 20th century. One of the most useful tools for the CPI practitioner has been *the 5-S process*. This very straightforward technique is used to help organize a work center in order to starting gaining efficiencies derived from a more orderly environment. It has been used often non-administrative settings such as industrial environments, where physical limitations on the orderliness of the work environment can cause serious impediments to efficiency. As a basic tool, it is often used as a precursor to the use of more advanced tools to identify waste in the value stream or process variation. The basic 5-S process is composed of 5 parts or steps, these are:

The 5S terms and their definitions are:

- Sort (Seiri) – this step is used to sort out the unused, unneeded items and materials in a workplace; this acts to reduce the footprint of the workshop and office in which the work is done.
- Set in order (Seiton) – this step in the process is the act of putting the remaining items in a logical order of their usage to facilitate their use. This also acts to help simplify the work process for the operator.
- Shine (Seiso) – this step is the process of cleaning out the workshop or office; this is the process of 'de-cluttering' the workplace.
- Standardize (Seiketsu) – this step seeks to standardize the process is to institutionalize the 5S components and this usually results in some type of documentation for the process and perhaps, re-training of the workforce.
- Sustain (Shitsuke) – this step seeks to 'sustain the gain' and is perhaps one of the most difficult things for managers and CPI practitioners to do. (McCarty, Daniels, Bremer, & Gupta, 2005)

In some business settings, and commonly in applications in the Federal government, *a 6th S* has been added, for *Safety* (US Environmental Protection Agency, 2011) **.** That is, none of the first five steps should be implemented in the absence of a safe working environment, and now the 5S technique becomes the *6S* technique.

For the rest of this article the 6S concept will be used to present a more all-inclusive view.

Proposed Evaluation Categories

The purpose of this article is to propose a variation of this traditional 6S into a *new 6S Administrative Process Assessment (APA)* tool with some modification to adjust for the administrative, vice, physical domain of the work center. In this model, the standard 6-Ss are used but, refined and reoriented to the administrative nature of the work. The six categories are now re-defined as:

Sort – This category evaluates the level to which the work center has identified and eliminated non-value added work from its process. This could have come from a Value Stream Mapping/Analysis event or other event where the tasks within the process were subjected to a *critical look towards lean operations.*

Set – For many administrative processes, timeliness of the final product is critical. This category evaluates the level to which the *workflow in the work center is prioritized in order to meet* the time constraints set by customer demand.

Shine – For many industrial workshops, it is important that the work center 'looks good', that is, that it is in a neat and orderly condition that enables efficient and safe production. Taking the concept of 'looking good' to the next level, this category in the 6-S APA model evaluates how 'good' the process 'looks' with respect to its *compliance to applicable laws, regulations and management objectives.*

Standardize – This category evaluates the level to which the *process has documented its current standard practices in sufficient detail.* Although the actual formatting style of the work procedures varies from organization to organization, many firms have adapted a better practice of emulating 'ISO-9000-like' written procedures as their basic formatting guidelines. By constructing all written procedures in this manner, an organization that may move towards ISO-compliance in the future will be well along the path (International Organization for Standardization).

Sustain – This category evaluates the level to which the process has been *institutionalized in the work unit*. Again, this manner of socializing and institutionalizing any new work practices varies with the firm and its corporate culture and leadership style. For any new process to be introduced some level of re-training is necessary and generally, this is easily accomplished. The more difficult challenge is *to refresh the competencies* of the employees on the newly employed standard practice introduced in the Standardize phase of this process. So when should a work unit refresh its competency set? As a rule, this should be done with *the turnover of a work center leader or key personnel* in the process. This should also be done in conjunction with special events such as upcoming audits, reviews or inspections. Perhaps simplest of all, an annual refresh of competencies is probably a good rule of thumb.

Safeguard – This category is perhaps the one that needs to be changed the most to be helpful in the administrative environment. First, notice that then name has changed from Safety to Safeguard, this is an

important distinction. This category evaluates the level to which the work process *safeguards its people and other resources such as government property, material and information.* This is a huge consideration in the current Federal workplace.

The Proposed Rating Scale

After determining what the categories will be, a suitable rating scale must be devised. To add value and a level of objectivity to the evaluation, it must be descriptive enough to provide the assessor a clear and consistent yardstick with which to measure processes. That is, the descriptors should be both *mutually exclusive and collectively exhaustive.* On the other hand, the rating scheme should not be overly burdensome and onerous to confuse and confound the assessor. With these two boundaries in mind, a basic rating scale of 1 – 4 is proposed, with a 1 being at the lowest level of evaluation and 4 being at the highest level of evaluation. The assessor can use one decimal point if they desire, for more granularity. One note of caution in interpreting the results of this evaluation is to realize that the numbers being used in this evaluation are *numeric representations of qualitative values.* The numbers are *not meant* to ascribe some significance to their absolute value but, *the relative change in performance between the before and after the improvement initiative* based on the six attributes listed in the first column. (Pyzdek, 2002)

An Example of the Framework in Practice

Below is an example of a completed 6-S Administrative Process Assessment Worksheet. This is notional data. A key point to note in performing these assessments is that they are *evidence-based*. Individual scores on based *solely on the evidence that a work center* has to substantiate that it is at a certain level for *that specific process*. For instance, if an assessor rates their process with a 4 in the Sort category, then there must be evidence that some type of action was taken to document and eliminate wasteful practices and that the process, is in fact, a lean operation. If an assessor rates their process as a 4 in the Straighten category, then there should be evidence to prove that the process has been meeting it's time objectives based on operational needs.

Table 1 Example 6-S Administrative Process Assessment

Title: 6S Administrative Process Assessment (APA) Worksheet								
Purpose: This worksheet can be used to assess the relative maturity of an administrative process to be able to operate efficiently and effectively while retaining a high state of process control and accountability.								
Instructions:	*Step 1 Using definitions provided in the cells below, evaluate current operations and write score in Col. G and total are shown. Score ranges from 1 (Level 1) to 4 (Level 4) and can use decimal values (ex. 2.5). For any Criteria that is not of interest to the study, put a 0 in the corresponding cells in Columns G and H.*		*Step 2 Propose or implement refined process and reevaluate and write scores in Col. H and totals are shown.*	*Step 3 Evaluate actual or proposed change for decision/follow-on actions.*		Enter values below		Cells below are auto-filled
Organization:			**Date of assessment:**					
Process:			**Assessor:**					
Criteria	**Definition**	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Begin-ing score**	**Ending score**	**% change**
Sort	The level to which the process has identified and ***eliminated non-value added*** work.	The work center has never reviewed its operations in order to identify and eliminate NVA tasks or unnecessary functions.	The work center has reviewed and eliminated some NVA tasks and to ensure work provides specific value to the value stream. Process is not being monitored.	The work center has reviewed and eliminated all NVA tasks to ensure all work provides specific value to the value stream. Process is not monitored.	The work center has reviewed and eliminated all NVA tasks and continues to monitor to ensure all work provides specific value to the value stream.	2.0	4.0	100.0%
Straighten	The level to which work is ***prioritized*** to meet time constraints.	There is currently no effective process for setting work priorities, work frequently do not meet time requirements.	This is currently no clearly defined process for setting priorities but some work meets time requirements.	There is currently a process to set clear priorities for work but not all work meet time requirements.	There is currently a documented process to set clear priorities for work and prioritization process is monitored. Work seldom does not meet time requirements.	2.0	4.0	100.0%
Shine/ Service	The level to which the process is in ***compliance to applicable laws, regulations and management objectives*** .	There is evidence that the process is in ***substantial non-compliance*** to applicable laws, regulations and management objectives.	There is evidence that the process is ***marginally in compliance*** to applicable laws, regulations and management objectives.	The process has evidence to demonstrate that it is ***mostly in compliance*** to applicable laws, regulations and management objectives.	The process has evidence to demonstrate that it is ***substantially in compliance to*** applicable laws, regulations and management objectives.	3.0	4.0	33.3%
Standardize	The level to which the process has ***current and detailed procedures*** written to cover the entire process.	***No current procedures*** exist on which to standardize the work	Work procedures exist but ***are not current and/or not detailed*** .	Detailed procedures written with clearly identified work but standards of performance ***are not identified.***	Detailed procedures written with clearly identified work ***and standards of performance are identified*** .	1.0	4.0	300.0%
Sustain	The level to which the process has been ***institutionalized*** in the work unit starting with trained employees with active monitoring and contingency/successi on planning of key functions.	Standardized work has not been identified for this process	Standardized work has been identified for this process but ***lacks detailed task procedures and/or*** employees have ***not been adequately trained***	Standardized work has been identified for this work center and all employees have been trained but ***employees are not always monitored and proficient*** in their responsibilities on work performance	Standardized work has been identified for this work center and all employees have been trained and employees ***are monitored and proficient*** in their responsibilities on work performance and contingency/succession plans are in place for key functions.	2.0	4.0	100.0%
Safeguard	The level to which the process ***safeguards its assets including people and other resources*** such as government property, material and information and public image.	Key assets and risks have ***not been fully identified/ documented*** and there are no established internal controls in the process.	Key assets and risks have been identified/ documented to some degree. There are no effective internal controls in the process.	Key assets and risks have been fully identified/ documented and there are internal controls in the process but are not monitored regularly by management for effectiveness.	Key assets and risks have been fully identified/ documented and there are effective internal controls in the process which are monitored regularly by management for effectiveness.	3.0	4.0	33.3%
					Total:	**13**	**24**	
					Total change in process:		***85%***	

In the above table we can see that the overall performance of the administrative process increased by 85%. This rating gives management some indication of the value of the change effort. Also, it is quite likely that not all of the scores in the Ending Score column will be rated as 4s and this gives management insight as to where future process improvement actions should be focused.

Conclusion

There has been a serious problem with applying many of the tools in the current process improvement arsenal to non-repetitive administrative-type tasks. The need for a valid and reliable evaluation protocol has never been greater. By modifying the application of one of the most widely used tools, the 6-S tool, a process improvement practitioner can have a head start in performing a better, more objective assessment of an administrative process, without having to learn a completely new tool. The 6-S Administrative Process Assessment tool can fill this need.

Bibliography

American Society for Quality. (2001). *The Certified Quality Manager Handbook.* Milwaukee: Quality Press.

Applefield, J., Huber, R., & Moallem, M. (2001). Constructivism in theory and practice: Toward a better understanding. *The High School Journal*.

Brewer, P. D., & Brewer, K. L. (2010). Knowledge Management, Human Resource Management, and Higher Education: A Theoretical Model. *Journal of Education for Business*, 330-335.

International Organization for Standardization. (n.d.). *ISO 9000 - Quality management.* Retrieved from ISO Standards: http://www.iso.org/iso/iso_9000

Keller, S., & Price, C. (2011). Organizational health: the ultimate competitive advantage. *McKinsey Quarterly*, pp. 94-107.

McCarty, T., Daniels, L., Bremer, M., & Gupta, P. (2005). *The Six Sigma Black Belt Handbook.* New York: McGraw-Hill.

Pyzdek, T. (2002). *Quality Engineering Handbook.* Tucson: Quality Publishing, LLC.

Rumelhard, D. E., & Norman, D. A. (1976). Accretion, tuning and restructuring. *California University of San Diego La Jolla Center for Human Information Processing*.

US Environmental Protection Agency. (2011, November 15). *Lean and Environment Toolkit.* Retrieved from Lean Manufacturing and Environment: http://www.epa.gov/lean/environment/toolkits/environment/ch5.htm

Womack, J. P., & Jones, D. T. (2003). *Lean Thinking.* New York: Free Press.