

EMR and Practice Change Patterns

At a recent healthcare conference, I listened to many speakers from prestigious consultancies talk about business process change (clinical and front/back office) as it related to EMR and Practice Management implementations. As expected, each suggested that they had the ideal way to improve your business processes. As I made notes on the various techniques they tendered, I was reminded of a framework I laid out in an earlier large healthcare business process reengineering engagement.

In essence, I developed an analysis of the kinds of problems companies face and then suggested some of the standard ways that people have approached these problems (a bit of research as well as my own real-life experience came into play here). I presented my straw man to the group I was working with, worked with them to fill the gaps and ultimately we reached consensus on which approach we would take in certain situations—and they also had a go-forward framework.

We used the term "patterns" to refer to these standard approaches and an overall visualization of the schema is shown below in Figure 1. On the left side, in black, you will see the kinds of problems companies face. In the middle, there is a representation of a continuum that ranges from Process Improvement to Clean Sheet Design. On the right (in blue) is a list of ten popular patterns, or interventions, roughly aligned to the types of problems they are most commonly used to solve.

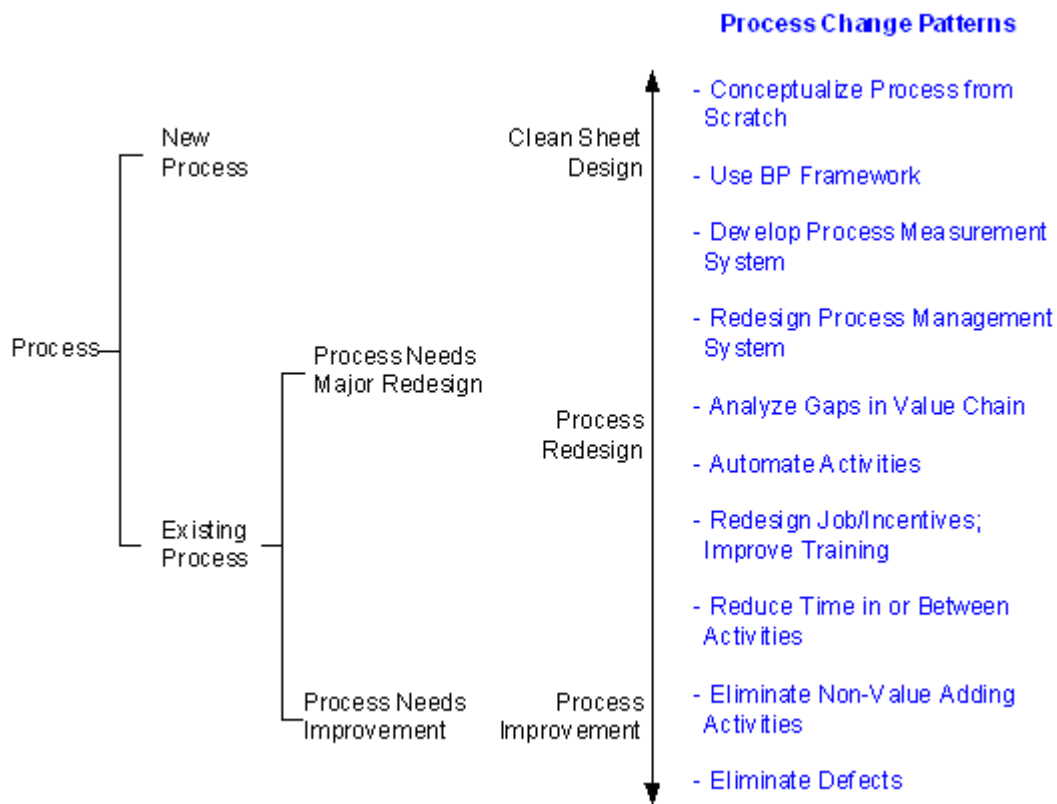


Figure 1. Process Problems and Change Patterns

Obviously, different methodologists would use different terms to describe these various patterns. My point, however, is not to establish a definitive set of patterns, but simply to suggest the range of possible interventions that might be considered next time you see an opportunity or need.

An analysis of the range of problems companies face is important since it reminds us that

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different types of problems call for different types of interventions. The first key distinction is the distinction between changing existing processes and creating completely new processes. A second distinction is the distinction between doing a major redesign of an existing process and simply improving an existing process.

Starting at the very bottom of the continuum that ranges from Process Improvement to Clean Sheet Design is a technique most people associate with Six Sigma. This pattern assumes a process that is working, but is working less than perfectly. The goal of this intervention pattern is to eliminate defects. Steps are analyzed to determine the cause of the defects and then activities are modified to reduce or eliminate the defects.

Moving upward on the continuum from this first pattern, are two processes that many associate with Lean: the Elimination of Non-Value Adding Activities and the Reduction of Time In or Between Activities. There are specific techniques that can be used with either pattern and they are frequently combined. Again, as with the Eliminating Defects pattern, these patterns assume a process that is more or less working in an acceptable manner. The goal isn't to completely redesign the process. The goal is to improve an existing process.

Further up, we encounter patterns that begin to be associated with more extensive change in an existing process. Job Redesign and Changes in Incentives or Training is usually associated with the Human Performance Improvement approach championed by ISPI. Once again, there is a growing tendency to combine this approach with Lean and Six Sigma, but the patterns are well defined and can stand-alone. This pattern relies on a detailed analysis of how human performers work and a systematic approach to changing job variables to assure better human performance.

One step higher, we reach Automation, a broad pattern that essentially calls for the use of machines, especially computers and software applications, to perform tasks that were previously performed by managers or employees. In some cases, databases may simply aid human performers by keeping track of data that would previously have been filed. In more extensive interventions, software systems can provide extensive support for employees, or they can completely replace the employees. Modest interventions may leave an existing process more or less as it was, but most automation efforts also lead to a major redesign of the existing process involving extensive changes in jobs and tasks. The Automation option that is receiving lots of attention at the moment is the use of a BPM software tool to manage the process as it executes. This often combines Process Redesign with extensive Automation.

Higher up the continuum, we encounter patterns that look at how one process interfaces with another and seeks to shift processes around to assure that an entire value chain is functioning as effectively as possible. This approach assumes that major problems result from failed handoffs between processes and focuses on integrating processes into a larger whole.

Another complex intervention involves training process managers to better manage processes and establishing organizational systems to manage those managers. This often results in the instillation of a matrix management system where managers report to both departmental managers and to managers responsible for the smooth functioning of major business processes or the entire value chain.

Measurement Systems are closely associated with Process Management systems. To manage processes, managers at all levels need appropriate measures. There are some interesting efforts afoot to use software systems to automate these processes but in

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essence, the problem begins with defining processes and determining what's worth measuring and who needs what information in order to make timely decisions.

Process Frameworks, like the Supply Chain Council's SCOR, are being increasingly used to quickly organize process architecture with well-defined processes and measures. Unfortunately, at this time I am unaware of a healthcare specific process framework akin to SCOR. However, using any of the standard Business Process Management approaches is already better than none-at all. Modern Business Process Management is an amalgam of what we used to refer to as two separate sets of processes: Business Process Reengineering and Change Management. Holistically, if the Framework is well organized, this approach reduces the effort involved in high-level analysis and development from months to 1-2 weeks.

The most challenging situation occurs when a healthcare company decides to enter a new line of business or to completely rethink a major process, starting with a blank sheet of paper and building the process design from scratch. This begins with a vision of how the process might work and then moves on to the development of a design that effectively implements the vision.

As described earlier, as I led the group through the consensus building process, we considered additional patterns, but many were discounted due to their "special nature" and weren't appropriate for inclusion at the time. For example, there are patterns associated with mergers where two processes must be combined. The only point here, however, is to suggest that there is no best way to improve or redesign business processes. There are many ways. Six Sigma and Lean often focus too narrowly and simply improve processes that would benefit from a major redesign (Six Sigma has advanced in this area recently with the inclusion of a ground-up design approach). Automation projects are often costly failures when companies seek to use technology to automate flawed processes or use technology that is new and unproven.

The simple analysis in Figure 1 highlights the differences between existing and new processes and between processes that need to be improved and those that need a serious overhaul. A more sophisticated analysis depends on determining whether or not the process can be automated, would benefit from changing employee practices, or would benefit most from changing how managers plan and control the process. In addition, there are new patterns that are becoming popular including the use of business process frameworks and tools for more effective process monitoring.

Business process practitioners should learn to think of process change as a complex undertaking that can, in different circumstances, call for the use of a variety of different business change patterns. Skilled practitioners have learned to employ more than one pattern. Don't let anyone convince you that there is one best approach or that every problem will yield to the same type of intervention. That's just a recipe for frustration, punctuated with occasional failures.